Missouri Student Survey 2016 Report

This report was prepared for Missouri's Department of Mental Health by:

Susan Depue, Ph.D.

Rachel Kryah, MSW, MPH

Julie Matthews, B.S.

Staci Scott, Ph.D.

Liz Sale, Ph.D.

Missouri Department of
MENTAL HEALTH

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Missouri Institute of Mental Health

TABLE OF CONTENTS

Executive Summary

Every even numbered year since 2000, the Missouri Departments of Mental Health (DMH) and Elementary and Secondary Education (DESE) have conducted the Missouri Student Survey (MSS) to monitor substance use and related behaviors of adolescent youth. All public middle and high schools are asked to participate by surveying at least one classroom per grade. This report describes the results of this survey.

The 2016 survey involves two levels of sampling. A random sample, selected for equal geographical distribution, is used to determine the state level data. A convenience sample is used to determine the county level data. Students who are part of the random sample were also automatically included in the convenience sample. For more information on the sampling methodology see Appendix A.

Key Findings

Comparisons between Missouri and the US

This section will examine Missouri data, as compared to US data. While this information is helpful in providing context, the reader should be aware that there are methodological differences between the Missouri Student Survey and both the National Survey on Drug Use and Health (NSDUH) and the Youth Risk Behavior Surveillance System (YRBS) which may result in some variations in the numbers that do not reflect true differences in the populations.   The YRBS only surveys 9-12 grades so where comparisons have been made, the MSS data also reflects high school students only. The charts below highlight findings from the 2016 survey.

<u>Substance Use</u>

Notably, past 30-day use of electronic cigarettes (e-cigarettes) is slightly higher than cigarette use, while use of hookah is comparable to chewing tobacco, highlighting the wide-spread use of these oft-

Participants

Statewide Random Sample: A total of 96 schools (48 middle and 48 high) were selected to be part of the random sample. Of these, 56 (58%) schools with 3,397 students participated. Data is weighted to represent the state level demographics. All data in this report is from the random sample.

County Level Convenience Sample (not reported here): The 2016 survey was administered to 103,712 children and adolescents in grades 6-12 representing 101 counties (88%). After data cleaning and adjustments to ensure the data represents the county demographics, the sample size equaled 94,486. Convenience samples were used in past reports.

Data in this report reflects the Statewide Random Sample. To obtain County Level numbers, see https://seow.dmh.mo.gov/

overlooked substances. In 2016, additional questions about the risk factors and use around these items were added; see the body of the paper for more. As prescription drug misuse is also an emerging issue (similar use rates to marijuana) questions on this was also added to contribute to the picture of risk and protective factors.

Comparing Missouri and the nation, Missouri high school students have slightly higher rates of tobacco use, especially chewing tobacco. They also have higher alcohol use rates. Past month marijuana use is similar to the national average, although lifetime use rates in Missouri are slightly lower than nationwide. Inhalants and hallucinogens have lower lifetime rates of use. These patterns of use between Missouri and the nation are consistent with historical trends.

Table 1: Percentage of Substance in Missouri Users (6-12th grade) and the United States (12-18 years)

	Missouri[1]		United States[2]	
	Lifetime	30-day	Lifetime	30-day
Alcohol	35.4%	14.3%	30.8%	11.6%
Electronic Cigarettes	22.4%	10.6%	n/a	n/a
Cigarettes	17.6%	6.2%	15.7%	5.6%
Marijuana	15.3%	7.0%	16.4%	7.1%
Prescription Drugs	14.5%	10.1%	n/a	n/a
Hookah	9.7%	3.4%	n/a	n/a
Chewing Tobacco	9.4%	3.7%	6.0%	2.0%
Over-the-Counter Meds	4.7%	2.2%	n/a	n/a
Inhalants	2.9%	1.1%	5.3%	0.5%
Synthetic Drugs	1.8%	0.3%	n/a	n/a
Hallucinogens	1.1%	n/a	2.8%	0.6%
Cocaine	0.9%	n/a	0.9%	0.2%
Club Drugs	0.8%	n/a	n/a	n/a
Methamphetamine	0.3%	n/a	0.5%	0.1%
Heroin	0.2%	n/a	n/a	n/a

YRBS (2015) collects national data on **high school youth only**. Their report shows Missouri high school students reporting less of both electronic cigarette use and prescription drug misuse.

Table 2: Percentage of Substance Users in Missouri and the United States, High School ONLY

	Missouri		United States[3]	
	Lifetime	30-day	Lifetime	30-day
Electronic Cigarettes	31.6%	15.5%	40.6%	22.0%
Prescription Drugs	15.9%	-	17.5%	n/a

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[1] MSS (2014), 6th – 12th grade, n = 68,583, average age = 14.55
[2] NSDUH (2013), 12-17 years of age, http://dmh.mo.gov/ada/rpts/docs/status2014/b02.pdf
[3] YRBS (2015), grades 9-12

Substance Use Dynamics

Age of Initiation of Substance Use

The average age of first use was generally lower in Missouri than the United States as a whole. The age was lowest for inhalants (10.85) and highest for marijuana (14.11).

Table 3: Average Age of First Use

	Missouri	United States[4]
Cigarettes	12.71	13.94
Alcohol	13.43	14.52
Marijuana	14.11	14.73
Inhalants	10.85	14.11

Risk of Harm from Substance Use

Other illegal drugs, synthetics, cigarettes, and prescription drugs were viewed as posing a great risk of harm among the majority of students. Alcohol was one of the substances seen as lower risk, although as the dosage increased, so did the perceived risk of harm.

More than a third (36.6%) of students thought that marijuana posed a slight risk or no risk at all. Likewise, more than a third (40.5%) thought that e-cigarettes were a slight risk or no risk at all.

Wrongfulness of Substance Use

Similar to responses for the perception of harm, alcohol use was most accepted. However, it should be noted that the majority of students in every question said that it would be "very wrong". When combined with "wrong", over 7 out of 10 students disagreed with substance use in all categories except alcohol. Over 9 out of 10 disagreed with the use of over the counter, prescription and other illegal drugs.

More youth perceived alcohol as very wrong when it was used every day or heavily once or twice a week. However, for marijuana, the frequency of use did not affect how wrong it was perceived.

Substance Use Extent

Among students who reported that they smoke cigarettes, the highest percent smoked only one or two days out of the month (42.3%), followed by 3 to 5 days (15.8%) and then daily smoking (12.3%). The majority (82.2%) of youth who smoked in the past 30 days reported smoking five or fewer cigarettes a day on the days that they did smoke. Very few (7.1%) reported smoking more than 15 cigarettes a day.

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[4] NSDUH (2014), Mean Age at First Use among Past Year Initiates of Substance Use Aged 12 or Older Who Initiated Use Prior to the Age of 18

Overwhelmingly, students report using flavor only products in their electronic cigarettes or vapes. These are products that do not contain any psychoactive substances. This should be interpreted cautiously though as FDA testing has shown a lack of quality control with these products.

Alcohol use is fairly high among those who had at least one drink in their lifetime, with 40.6% reporting that they used alcohol within the last 30 days. Of those who tried alcohol, (4.1%) students report that they had at least one drink of alcohol on 20 or more occasions. Among those youth who reported drinking in the last 30 days, the majority (64.3%) reported drinking only 1 or 2 days. Among those, 8.2% reported drinking on school property at least once.

Of those youth who smoked marijuana in the past month, 40.3% of youth reported smoking one or two days in the month while 12.3% reported daily use.

About one in ten (11.2%) of past month users smoked marijuana on school property in the past 30 days. This is higher than the percentage reporting drinking alcohol on school property (8.2%) and lower than those who reported smoking cigarettes on school property (19.7%).

Of those who did misuse prescription drugs at least once, pain medication was the most commonly misused substance. As the most common reason given for misusing is to reduce / manage pain, this makes sense. Similarly, sleeping medication is the second most misused prescription drug and the second most common reason given is to help with sleep. Less than 1 out of 10 students reported misusing prescription medication either to have a good time or to fit in with friends. Prescription drugs were most commonly sourced from a friend or family member. A little over 1 in 10 students took the medication without permission.

Ease of Obtaining Substances

About half of youth perceived that cigarettes (standard and electronic), alcohol, and over-the-counter drugs were either "very easy" or "sort of easy" to obtain. Marijuana was perceived easier to get than prescription or synthetic drugs, with almost 4 out of 10 students believing marijuana was easy to get. Illegal drugs were perceived as the most difficult to get, with a large majority (86%) reporting that they were "sort of hard" or "very hard" to get.

Table 4: Youth Perception of Substance Availability

	Very Easy	Sort of Easy	Sort of Hard	Very Hard
Cigarettes	25.7%	20.4%	16.1%	37.9%
Alcohol	27.5%	23.2%	15.1%	34.2%
Over-the-Counter Drugs	34.2%	17.4%	14.4%	34.0%
E-Cigarettes	24.9%	18.2%	15.5%	41.4%
Marijuana	21.3%	16.0%	12.9%	49.9%
Prescription Drugs	14.4%	13.3%	21.7%	50.6%
Synthetic Drugs	10.1%	11.9%	19.0%	59.1%
Other Illegal Drugs	5.9%	8.1%	15.8%	70.2%

Mental Health Dynamics

School Safety and Absenteeism

The great majority of students report that they do not skip school due to feeling unsafe.   Missouri is similar to the national survey on this point (**High school students only**: 7.1% MSS, 2016 vs. 6.1% - YRBS, 2015). However, more than 1 in 10 students disagree or strongly disagree that they feel safe at school.

Problem Behaviors

The majority of students reported that they had not engaged in physical bullying (84.5%), spread mean rumors or lies at school (77.1%) nor embarrassed another student online or via text messaging (83.4%). However, a majority (54.1%) of youth did report making fun of other people, and 5.8% reported doing this 40 or more times in the past three months. **Missouri high school students** report being bullied at school slightly more than reported on the national survey (25.7% - MSS, 2016 vs 21.4% - YRBS, 2015).

Table 5: Bullying Behavior in the Past Three Months

Bullying Behaviors	% 1+ Times
Made fun of other people	54.1%
Spread mean rumors or lies about others at school	22.9%
Posted something online or sent a text that might embarrass or hurt another student	16.6%
Hit, shoved or pushed another student and were not just fooling around	15.5%

Four out of five students reported not engaging in a physical fight in the last year. Almost all youth reported they were not injured in a physical fight nor were they threatened with a weapon while on school property. For those who did engage in fighting, the majority reported that they had only fought once in the past year. Nationally, 5.9% of high school students reported carrying a weapon at school (YRBS, 2015) compared to 5.1% of Missouri high school students.

Depression, Self-Harm and Suicidal Ideation

About 18.0% of students reported attempting to harm themselves on purpose in a deliberate, but not suicidal, way. The most common method of self-harm was to "cut, scratched or hit myself on purpose". Females were much more likely than males to report self-harm (25.3% vs. 10.5%).

More than 1 in 10 youth (13.9%) surveyed reported that they considered suicide in the last year, 9.9% made a plan to commit suicide. Almost all of those who attempted did so only once. Using the YRBS (2015) as a national comparison for **high school students only**, Missouri has lower numbers than national numbers across all questions.

Table 6: Percent of Students Reporting Suicidal Behavior – **High School ONLY**

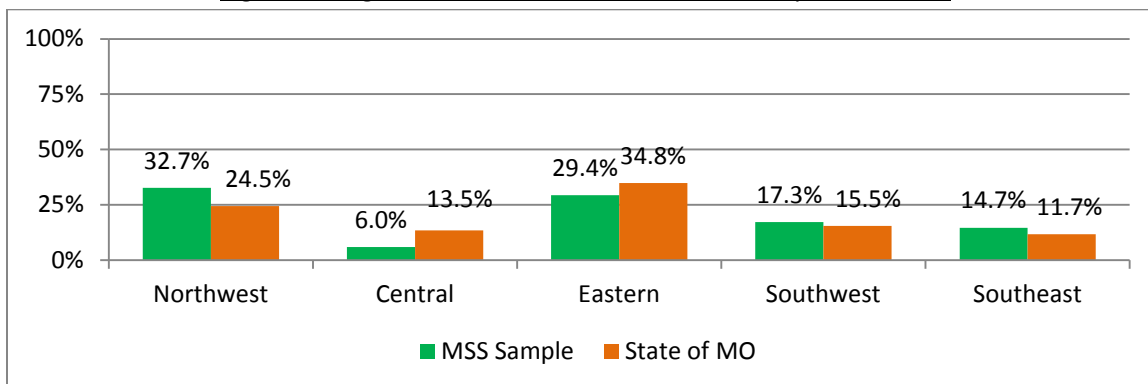|	2016 MSS	2015 YRBS
Seriously Considered	15.0%	16.2%
Made a Plan	11.2%	13.4%
Attempted	6.3%	9.8%
Attempted Resulting in Injury	1.1%	3.2%

CHAPTER 1 – INTRODUCTION

While many of the substance use and other risky behaviors of students have either remained constant or declined slightly in the recent years, many school-aged youth continue to engage in behaviors that put them at risk for injury, disease, and loss of life. The consequences of engaging in these behaviors in adolescence are too great to be ignored. In order to track trends in adolescent risk behaviors, the Missouri Department of Mental Health (DMH) and Department of Elementary and Secondary Education (DESE) have conducted the Missouri Student Survey (MSS) every even numbered year since 2000. The first MSS, conducted by Research Triangle Institute on behalf of DMH, was funded by the U.S. Department of Health and Human Services' Substance Abuse and Mental Health Services Administration (SAMHSA). Since then, the MSS has been funded by the DMH and analysis conducted by the Missouri Institute of Mental Health (MIMH). Beginning in 2016, MIMH coordinated the data collection as well.

This report presents the results of the 2016 MSS which assesses substance use and other health-risk behaviors among 6th through 12th graders attending public schools across the state. This is the first year that Missouri implemented a statewide random sample (see Appendix A). Numbers reported here reflect that random sample. Data at the more local levels (found elsewhere) continues to reflect a convenience sample.

Regional Distribution

All of the DMH's Division of Behavioral Health (DBH) planning regions were represented to varying degrees in the final sample (see Figure 1). The Eastern region, which includes the state's most populous counties (i.e., St. Louis, St. Charles, Franklin, Jefferson, and St. Louis City) had the highest percentage of students (36.1%). The Northwest region, encompassing the Kansas City area and surrounding counties, had the next highest percentage (24.4%). The sample distributions are similar to those of the state[5].

Figure 1: Regional Distribution of 2016 MSS Sample and State

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[5] http://dmh.mo.gov/ada/rpts/2015statusreport.html

Participant Gender

The sample was evenly represented by males (47.7%) and females (52.3%), weighted to be similar to the state's gender distribution (49.0% male and 51.0% female).

Participant Age and Grade

Participating schools were asked to survey at least one class in each grade. The majority of the 2016 MSS sample was between the ages of 12 and 16. The participants were 14.67 years of age on average.

Table 7: Grade Level of 2016 MSS Sample

	Weighted Percentage of Sample
6th	13.9%
7th	14.4%
8th	14.3%
9th	15.2%
10th	14.7%
11th	13.9%
12th	13.6%

Participant Race and Ethnicity

The majority of the sample was White (78.8%), and 16.0% were Black or African-American. These percentages were weighted to be similar to the state of Missouri's estimated race/ethnicity population distributions (82.8% White and 11.6% Black).

Table 8: Race / Ethnicity Distribution of 2016 MSS Sample

Race	Percentage of Sample
Hispanic/Latino (of any race)	2.1%
Not Hispanic or Latino	97.9%
White/Caucasian	78.8%
Black/African-American	16.0%
American Indian/Alaskan Native	0.4%
Asian	0.3%
Native Hawaiian or Other Pacific Islander	0.1%
Multiracial	3.1%
Other (not otherwise specified)	1.2%

Parent's education

At the minimum, most participants' parents graduated from high school. A slightly higher percentage of mothers completed a college education than did fathers.

Table 9: Parental Education

	Mother's Ed	Father's Ed
Did not finish High School	6.5%	7.3%
Graduated from High School	22.2%	26.4%
Some education after High School	13.6%	12.2%
Graduated from College	45.8%	33.8%

CHAPTER 2 – ALCOHOL, TOBACCO, & OTHER DRUGS

This chapter contains information on substance abuse and related risk and protective factors.

Lifetime & Past Month (30-day) Substance Use

Substance Use Comparisons with a National Sample

Table 10 below displays lifetime and 30-day substance use for Missouri youth compared to national data from the 2014 NSDUH. In both Missouri and the nation, alcohol use was higher than all other drugs, followed by cigarette (both standard and electronic) and marijuana use. Alcohol, cigarette and chewing tobacco lifetime and 30-day use was higher in Missouri than nationally. Inhalant and hallucinogen lifetime use was higher nationally than in Missouri. With the exception of marijuana, lifetime Illegal drug use is below 3%. However, rates of legal drugs (prescription and over the counter) being misused are 5% or higher.

Table 10: Percentage of Substance Users in Missouri and the United States

	Missouri		United States[6]	
	Lifetime	30-day	Lifetime	30-day
Alcohol	35.4%	14.3%	30.8%	11.6%
Electronic Cigarettes	22.4%	10.6%	n/a	n/a
Cigarettes	17.6%	6.2%	15.7%	5.6%
Marijuana	15.3%	7.0%	16.4%	7.1%
Prescription Drugs	14.5%	10.1%	n/a	n/a
Hookah	9.7%	3.4%	n/a	n/a
Chewing Tobacco	9.4%	3.7%	6.0%	2.0%
Over-the-Counter Meds	4.7%	2.2%	n/a	n/a
Inhalants	2.9%	1.1%	5.3%	0.5%
Synthetic Drugs	1.8%	0.3%	n/a	n/a
Hallucinogens	1.1%	n/a	2.8%	0.6%
Cocaine	0.9%	n/a	0.9%	0.2%
Club Drugs	0.8%	n/a	n/a	n/a
Methamphetamine	0.3%	n/a	0.5%	0.1%
Heroin	0.2%	n/a	n/a	n/a

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[6] NSDUH (2014), 12-17 years of age

YRBS (2015) collects national data on high school youth only. Their report shows Missouri high school students reporting less of both electronic cigarette use and prescription drug misuse.

Table 11: Percentage of Substance Users in Missouri and the United States, High School ONLY

	Missouri		United States[7]	
	Lifetime	30-day	Lifetime	30-day
Electronic Cigarettes	31.6%	15.5%	40.6%	22.0%
Prescription Drugs	15.9%	n/a	17.5%	n/a

Age of First Substance Use Comparisons with National Samples

Data for age of first use show that inhalants are used at earlier than other drugs while marijuana has the latest age of first use. Comparing Missouri data to national data, Missouri youth tend to start using all substances at a slightly younger age.

Table 12: Average Age of First Use

	Missouri	United States[8]
Cigarettes	12.71	13.94
Alcohol	13.43	14.52
Marijuana	14.11	14.73
Inhalants	10.85	14.11

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[7] YRBS (2015), grades 9-12
[8] NSDUH (2014), Mean Age at First Use among Past Year Initiates of Substance Use Aged 12 or Older Who Initiated Use Prior to the Age of 18

Substance Use Extent & Circumstances

As reported previously, approximately 14.3% of students reported that they drank alcohol in the past 30 days, 10.6% smoked cigarettes and 7.0% smoked marijuana. This section will discuss those youth, going into greater detail on the extent of their use and the behaviors surrounding the use.

Tobacco

Of those youth who are not currently smoking, 82% said they would "definitely not" smoke a cigarette if one of their best friends offered it to them.

Among students who reported that they smoke, the highest percent smoked only one or two days out of the month (42.3%), followed by 3 to 5 days (15.8%) and then daily smoking (12.3%).

Figure 3: Number of Days of Use among Youth Who Had Smoked Cigarettes in the Past Month
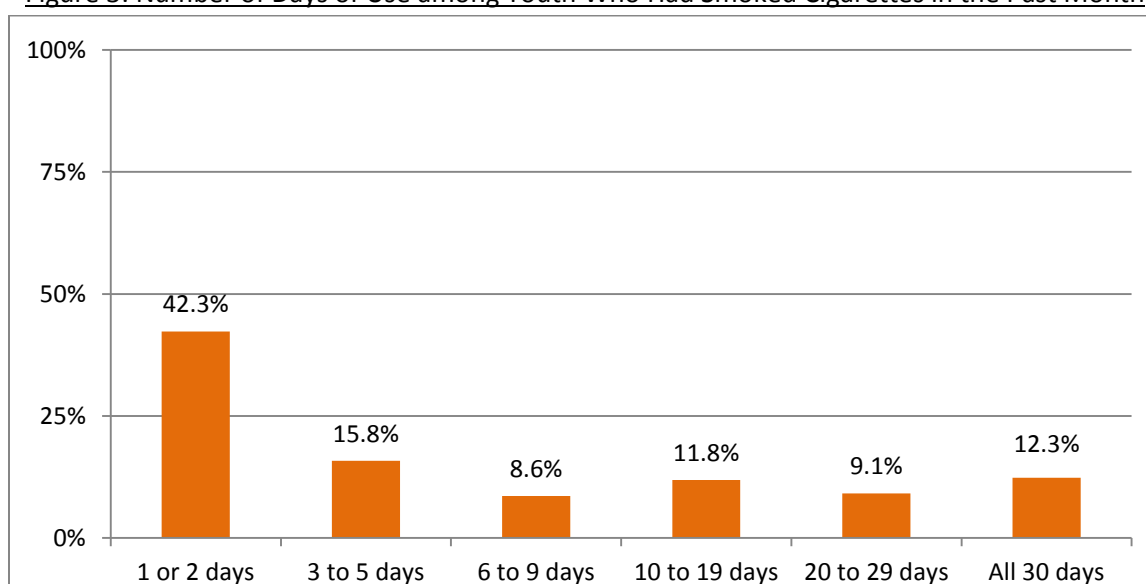
Among youth who had smoked a cigarette in the 30 days prior to the survey administration, 67.6% tried to quit smoking at some point and 38.1% of them did so successfully.

The majority (82.2%) of youth who smoked in the past 30 days reported smoking five or fewer cigarettes a day on the days that they did smoke. Very few (7.1%) reported smoking more than 15 cigarettes a day.

Figure 4: Average Number of Cigarettes Smoked per Day (on Days That Cigarettes Were Smoked) among Youth Who Had Smoked Cigarettes in the Past Month
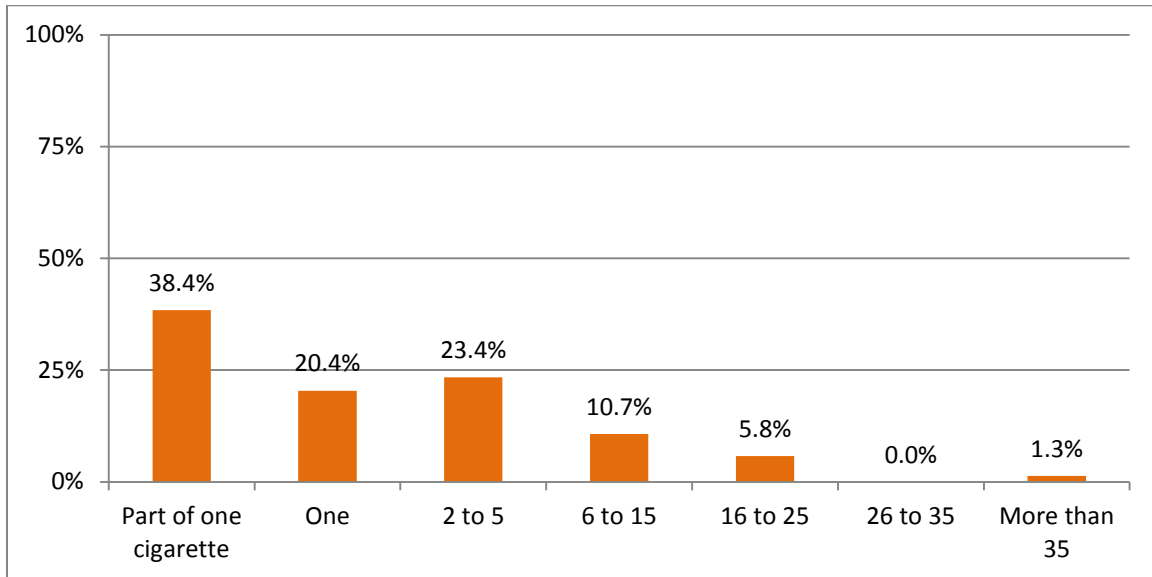
Less than a quarter (19.6%) of cigarette smokers had smoked on school property during the past 30 days, most of them 1-2 days. Approximately 4% of smokers are doing so on school property daily.

Figure 5: Number of Days Youth Smoked on School Property, of Those Who Smoked in the Past Month
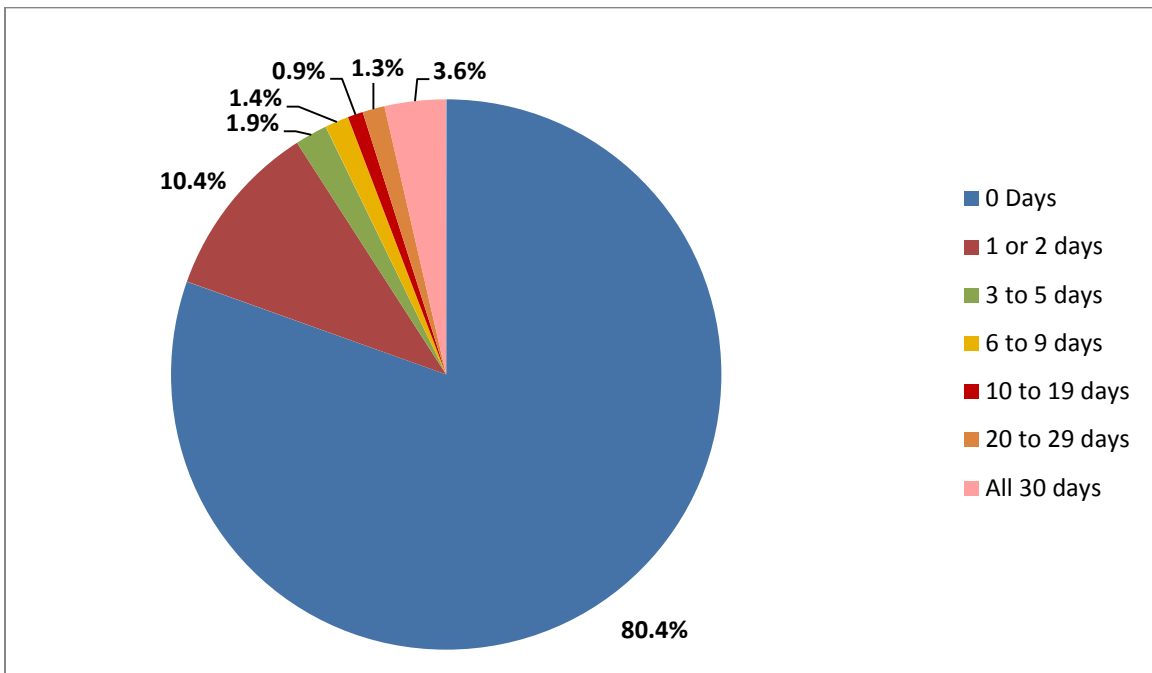
The use of chewing tobacco is similar to cigarette use with the largest percentage of youth using only 1 or 2 days (41.4%) out of the month or every day (31.9%).

Figure 6: Days of Use Among Youth Who Had Used Chewing Tobacco or Snuff in the Past Month
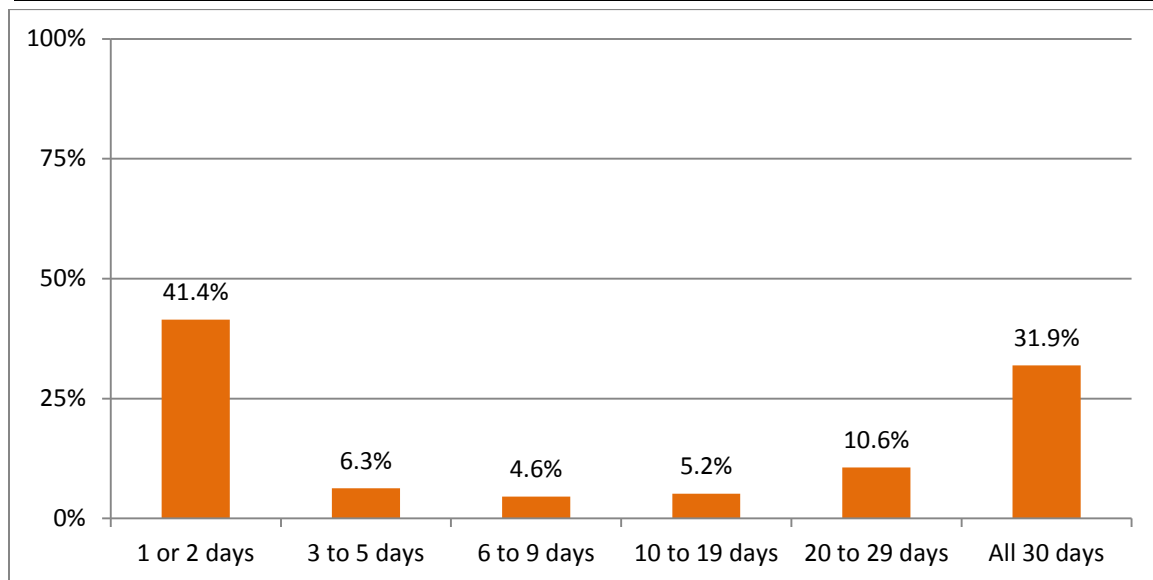
Electronic cigarettes, mods and vapes are a type of product designed to heat a substance for inhaling. While commonly considered an alternative for standard cigarettes, the devices can be used with other products. Given the high rates of those saying they use this device, a question was added in 2016 to determine what products were being used. Overwhelmingly, students report using flavor only products that do not contain any psychoactive substances. This should be interpreted cautiously though as FDA testing has shown a lack of quality control with these products[9].

Note that the numbers below are of those who reported using electronic cigarettes at least once in their life. Because students could select as many items as they wished, numbers may not total 100%.

Table 13: Product Used in E-Cig, Mod or Vape for those who reported using E-Cigs in their lifetime

	Endorsed
Flavor only	81.3%
Nicotine	21.1%
Marijuana	7.7%
Other	5.0%

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[9] http://dmh.mo.gov/ada/mobhew/docs/mobhewbrief201404.pdf

Alcohol

Among all youth, 53.7% said they would "definitely not" drink alcohol if one of their best friends offered it to them, while 5.2% said "definitely yes." Overall, in the past 30 days, a small percentage (4.4%) of students 16 and older reported drinking while driving. While 14.4% of all students rode with someone who had been drinking, this is less than reported at the national level (18.5% - YRBS, 2015). However, when looking only at students who reported drinking in the past 30 days, about 40% rode with someone who had been drinking and 17.1% reported drinking and driving.

Alcohol use is fairly high among those who had at least one drink in their lifetime, with 40.6% reporting that they used alcohol within the last 30 days. Of those who tried alcohol, (4.1%) students report that they had at least one drink of alcohol on 20 or more occasions.

Figure 7: Number of times Youth Had at Least One Drink of Alcohol in Their Lifetime, Among Those Who Had a Drink at Least Once
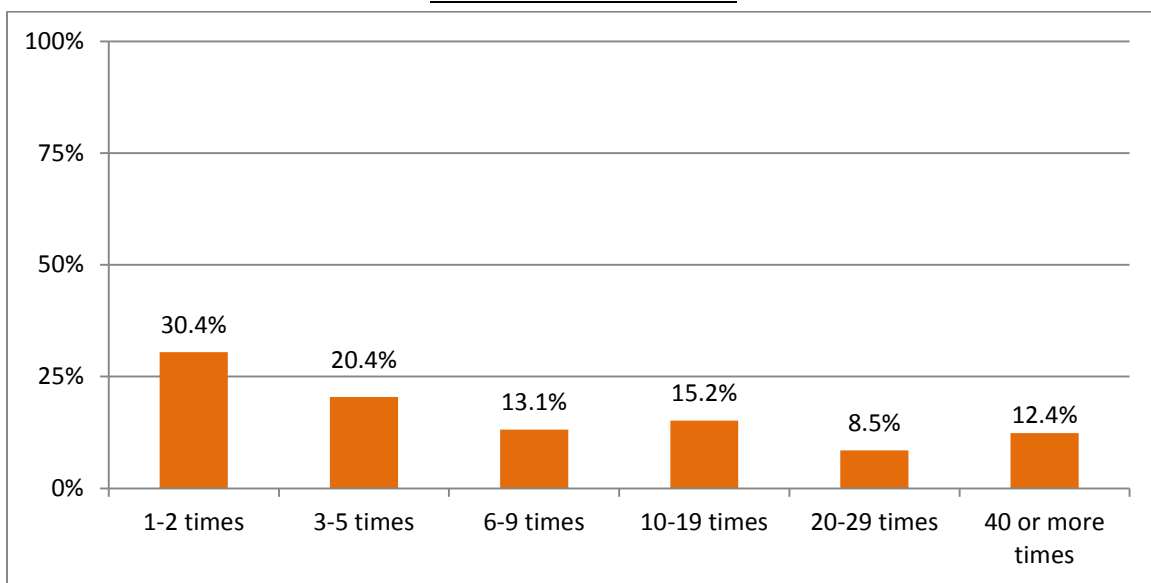
Among those youth who reported drinking in the last 30 days, the majority (64.3%) reported drinking only 1 or 2 days. Among those, 8.2% reported drinking on school property at least once.

Figure 8: Days of Use Among Past Month Alcohol Users
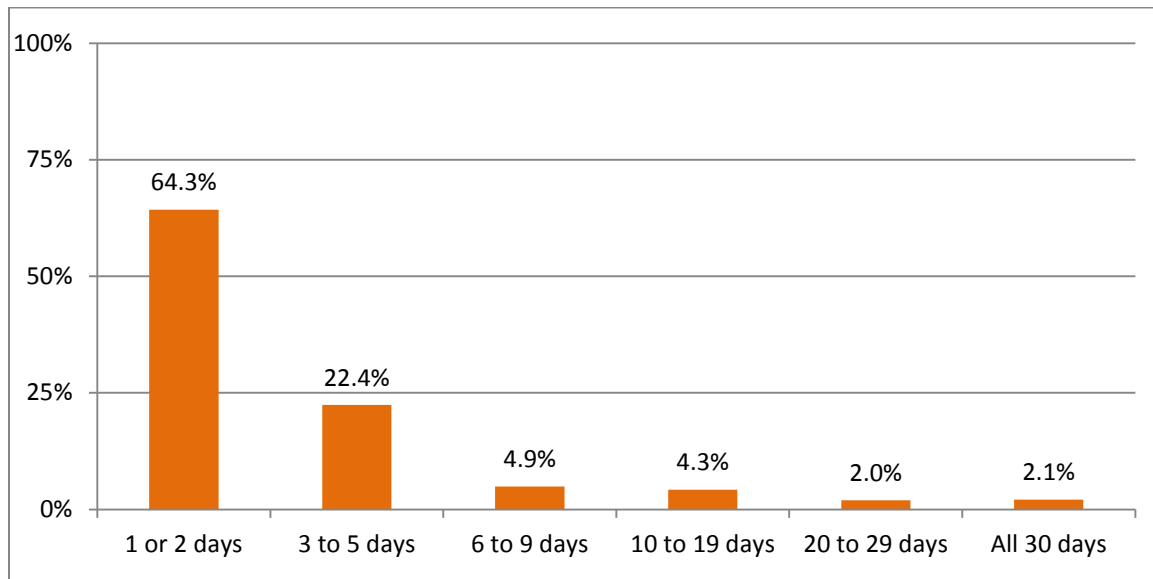
Almost a fourth (22.8%) of students reporting past month use also reported having five or more drinks (binge drinking) in the past two weeks. Taken with Figure 9, this indicates that while most youth only drink 1-2 days a month, when they do drink many of them drink heavily.

Figure 9: Average Number of Drinks Consumed (on Days That Alcohol Was Used) Among Youth Who Consumed Alcohol in the Past Month
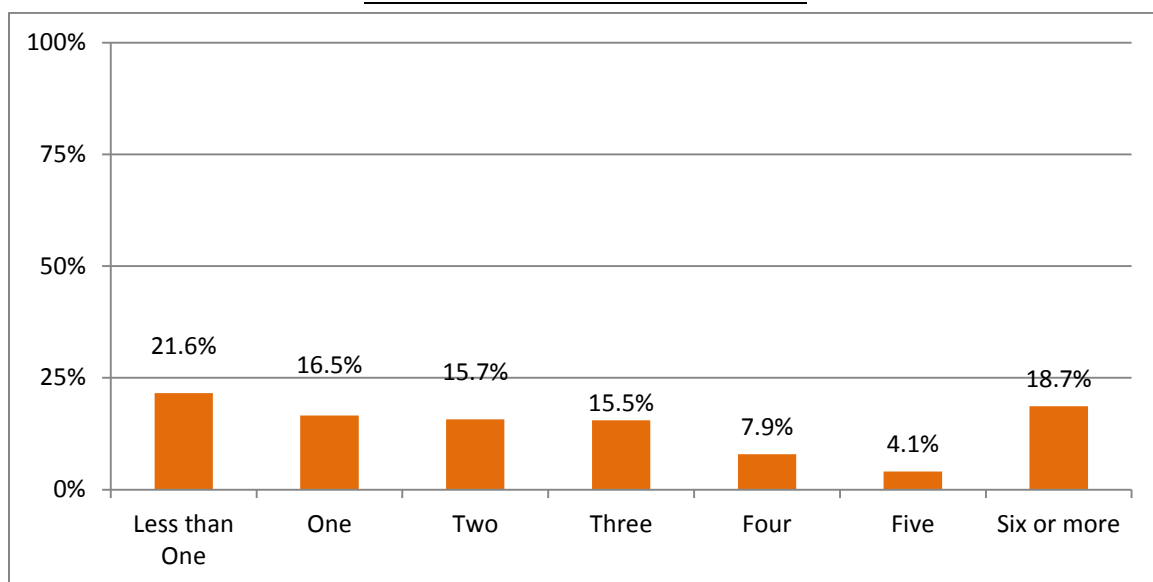
Marijuana

Of those surveyed, 71.3% said they would "definitely not" smoke marijuana if one of their best friends offered it to them while 5.6% said they definitely would smoke.

Of those youth who smoked marijuana in the past month, 40.3% of youth reported smoking one or two days in the month while 12.3% reported daily use.

About one in ten (11.2%) of past month users smoked marijuana on school property in the past 30 days. This is higher than the percentage reporting drinking alcohol on school property (8.2%) and lower than those who reported smoking cigarettes on school property (19.7%).

Figure 10: Number of Days of Use Among Past Month Marijuana Smokers
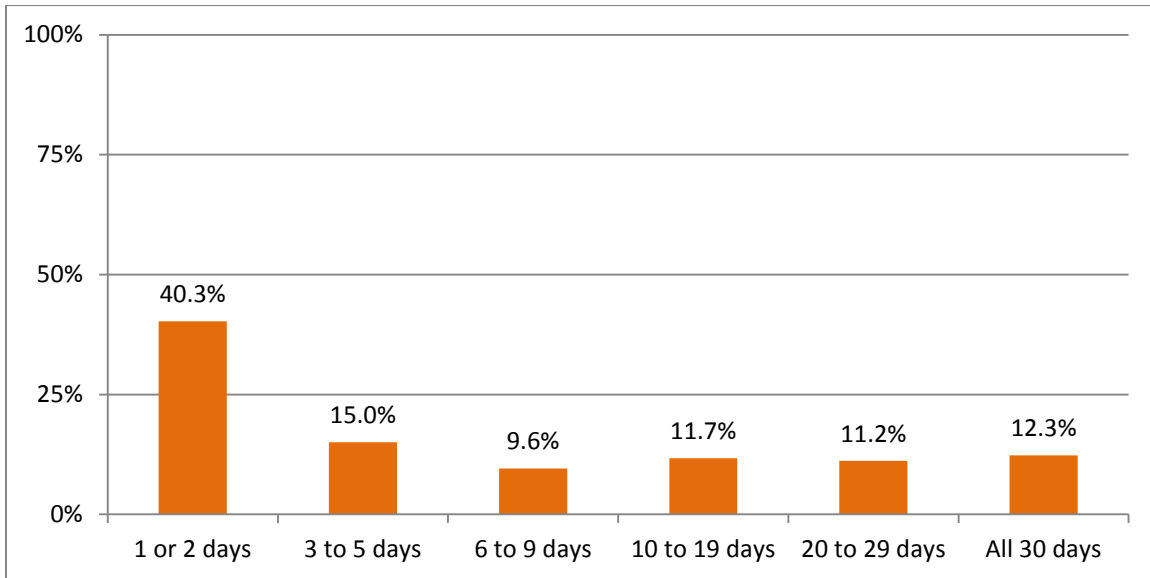
With the increase in attention around marijuana, additional ways to consume it are becoming more known. In 2016, a question was added to the survey to ask students how they were consuming marijuana. Smoking is still the most common method but significant numbers are using other methods.

Note that the numbers below reflect only those students who say that they have used marijuana at least once in their lifetime. Because students could select as many items as they wished, numbers may not total 100%.

Table 14: Methods of Using Marijuana

	Endorsed
Smoke it (blunt, pipe, joint, etc.)	44.6%
Smoke it (vape, bong, water pipe, hookah)	29.9%
Dabbing / Wax / Hash Oil	16.1%
Eat it (edibles)	15.5%
Other	3.0%

Prescription Drug Misuse

Note that the numbers below are of those who reported misusing prescription drugs at least once in their life. Because students could select as many items as they wished, numbers may not total 100%.

Of those who did misuse prescription drugs at least once, pain medication was the most commonly misused substance. As the most common reason given for misusing is to reduce / manage pain, this makes sense.   Similarly, sleeping medication is the second most misused prescription drug and the second most common reason given is to help with sleep. Less than 1 out of 10 students reported misusing prescription medication either to have a good time or to fit in with friends.

Table 15: Type of Prescription Misused in the Past Year, of those who reported Lifetime Misuse of Prescription Drugs

	Endorsed
Pain medication	51.5%
Sleeping medication	25.8%
Sedatives / anxiety medication	15.5%
Stimulants	12.2%
Other	10.7%

Table 16: Reasons for Use that were Important to those who reported Lifetime Misuse of Prescription Drugs

	Endorsed
To reduce and/or manage pain	35.2%
To help me sleep	26.2%
To help with stress	19.9%
To help me feel better or happier	15.9%
To increase my energy	9.6%
To have a good time	8.4%
Curiosity	5.8%
To improve academic performance	5.6%
To help with weight loss	2.8%
To fit in with friends	1.0%

Prescription drugs were most commonly sourced from a friend or family member. A little over 1 in 10 students took the medication without permission.

Table 17: How Prescription was Accessed, of those who reported Lifetime Misuse of Prescription Drugs

	Endorsed
A family member gives or sells it to me	31.0%
I take it without permission	13.6%
A friend gives or sells it to me	13.0%
A stranger gives or sells it to me	2.1%
I buy it online	1.1%
Other	10.3%

Factors Associated with Adolescent Substance Use

Substance Availability

About half of youth perceived that cigarettes (standard and electronic), alcohol, and over-the-counter drugs were either "very easy" or "sort of easy" to obtain. Marijuana was perceived easier to get than prescription or synthetic drugs, with almost 4 out of 10 students believing marijuana was easy to get. Illegal drugs were perceived as the most difficult to get, with a large majority (86%) reporting that they were "sort of hard" or "very hard" to get.

Table 18: Youth Perception of Substance Availability

	Very Easy	Sort of Easy	Sort of Hard	Very Hard
Cigarettes	25.7%	20.4%	16.1%	37.9%
Alcohol	27.5%	23.2%	15.1%	34.2%
Over-the-Counter Drugs	34.2%	17.4%	14.4%	34.0%
E-Cigarettes	24.9%	18.2%	15.5%	41.4%
Marijuana	21.3%	16.0%	12.9%	49.9%
Prescription Drugs	14.4%	13.3%	21.7%	50.6%
Synthetic Drugs	10.1%	11.9%	19.0%	59.1%
Other Illegal Drugs	5.9%	8.1%	15.8%	70.2%

Peer Substance Use

The majority of youth surveyed reported that none of their friends used cigarettes, marijuana or other illegal drugs in the past year. Many youth (45.2%), however, did have at least one friend who drank alcohol.

Of those youths with at least one friend who use marijuana or alcohol, about half report that 4 or more friends use these substances. This indicates that for many youth with friends that use, a large portion of their social group engaging in a use of these substances. Among those with a friend who uses illegal drugs, however, only about 2.1% have 4 or more friends who use illegal drugs, reflecting the relative rarity of illegal drug use.

Table 19: Percentage of Youth Who Have Friends Who Use Substances

	0 friends	1 friend	2 friends	3 friends	4 or more friends
Cigarettes	70.6%	10.4%	6.5%	3.8%	8.6%
Alcohol	54.8%	11.4%	9.1%	4.3%	20.4%
Marijuana	64.6%	9.8%	7.1%	3.3%	15.3%
Other Illegal Drugs[1]	89.2%	4.9%	2.4%	1.3%	2.1%

Perceived "Coolness" of Substances

While students may have friends who use substances, the great majority of them believe that their friends would not see them as very or pretty cool if they used. Cigarettes are seen as the least cool substance while marijuana was seen as "very cool" more often than any other substance.

Table 20: Percentage of Youth who Indicate Level of Coolness

	Very Cool	Pretty Cool	A Little Cool	Not at all Cool
Smoked Cigarettes	2.1%	7.0%	16.6%	74.3%
Drank Alcohol	8.6%	16.3%	21.2%	53.9%
Smoked Marijuana	11.3%	13.7%	15.8%	59.2%
Used E-Cigarettes	5.3%	11.7%	19.0%	64.0%

Perceived Risk of Harm from Substances

Other illegal drugs, synthetics, cigarettes, and prescription drugs were viewed as posing a great risk of harm among the majority of students. Alcohol was one of the substances seen as lower risk, although as the dosage increased, so did the perceived risk of harm.

More than a third (36.6%) of students thought that marijuana posed a slight risk or no risk at all. Likewise, more than a third (40.5%) thought that e-cigarettes were a slight risk or no risk at all.

Table 21: Youths' Perception of Risk of Harm from Using Substances

	No Risk at All	Slight Risk	Moderate Risk	Great Risk
Cigarettes	6.8%	8.2%	20.4%	64.7%
Alcohol:				
Any alcohol use	7.3%	26.4%	35.4%	30.9%
One or two drinks nearly every day	9.5%	19.9%	34.7%	35.9%
Five or more drinks once or twice a week	6.8%	14.8%	30.3%	48.1%
E-Cigarettes	13.4%	27.1%	31.7%	27.8%
Marijuana	17.3%	19.3%	20.9%	42.6%
Over the Counter Drugs	7.1%	15.2%	29.4%	48.2%
Prescription Drugs	5.3%	8.4%	24.6%	61.8%
Other Illegal Drugs	5.2%	3.8%	11.9%	79.0%
Synthetic Drugs	5.8%	5.8%	16.4%	72.0%

Morality of Substance Use

Similar to responses for the perception of harm, alcohol use was most accepted. However, it should be noted that the majority of students in every question said that it would be "very wrong". When combined with "wrong", over 7 out of 10 students disagreed with substance use in all categories except alcohol. Almost all disagreed with the use of over the counter, prescription and other illegal drugs.

More youth perceived alcohol as very wrong when it was used every day or heavily once or twice a week. However, for marijuana, the frequency of use did not affect how wrong it was perceived. The majority of youth thought that it was very wrong to use cigarettes, marijuana and other illegal drugs.

Table 22: Youths' Perception of Wrongfulness of Substance Use

	Not wrong at all	A little bit wrong	Wrong	Very wrong
Cigarettes	4.5%	7.1%	17.3%	71.1%
Alcohol:				
Any type of alcohol	11.8%	20.1%	18.1%	50.1%
One or two drinks every day	5.0%	8.2%	20.5%	66.3%
Five or more drinks once or twice a week	4.7%	6.6%	16.8%	72.0%
E-Cigarettes	8.9%	11.9%	18.1%	61.0%
Marijuana:				
Any use	10.7%	10.3%	14.2%	64.9%
Once or twice a week	9.5%	9.3%	14.5%	66.7%
Over the Counter Drugs	3.1%	4.7%	17.7%	74.6%
Prescription Drugs	2.2%	3.9%	15.7%	78.3%
Other Illegal Drugs	1.4%	1.6%	11.0%	86.0%

Law Enforcement

The perceived effectiveness of substance use law enforcement was low. Most youth did not believe that the police would catch someone using substances in their neighborhood. This is fairly consistent across all drugs. Of these three substances, however, students are most likely to believe that a police officer would catch someone using marijuana.

Table 23: Percentage of Youth Who Think the Police Would Catch Students Using Substances in Their Neighborhood

	No!	no	yes	Yes!
Cigarettes	26.9%	43.4%	20.0%	9.6%
Alcohol	24.9%	41.1%	22.8%	11.2%
Marijuana	21.0%	34.0%	26.0%	18.9%

CHAPTER 3 – PROBLEM BEHAVIORS

This chapter contains information on self-reported problem behaviors including emotional and physical bullying, physical aggression, and experience with weapons. It also includes information on factors associated with adolescent problem behaviors, such as rebellious and defiant attitudes, weapon availability, perceived law enforcement response to weapon possession, peer weapon use, and problem behavior and attitudes among the family.

Bullying

Bullying Behaviors

Youth were asked to report the number of times in the past three months they either bullied others or were bullied by another student through particular behaviors. Bullying behaviors included physical bullying (whether a student had hit, shoved or pushed another student and were not just fooling around") and emotional bullying, including spreading mean rumors or lies, making fun of others, and embarrassing or hurting another student through the use of a cell phone or the internet.

The majority of students reported that they had not engaged in physical bullying (84.5%), spread mean rumors or lies at school (77.1%) nor embarrassed another student online or via text messaging (83.4%). However, a majority (54.1%) of youth did report making fun of other people, and 5.8% reported doing this 40 or more times in the past three months. Missouri high school students report being bullied at school in the past year slightly more than reported on the national survey (25.7% - MSS, 2016 vs 21.4% - YRBS, 2015).

Table 24: Frequency of Bullying Behaviors in the Past 3 Months

	Never	1-2	3-5	6-9	10-19	20-29	30-39	40 +
Hit, shoved or pushed another student and were not just fooling around	84.5%	9.7%	2.8%	1.4%	0.3%	0.3%	0.1%	0.9%
Spread mean rumors or lies about others at school	77.1%	16.3%	3.8%	1.4%	0.7%	0.1%	0.0%	0.5%
Made fun of other people	45.9%	30.1%	8.8%	4.9%	3.0%	1.0%	0.4%	5.8%
Posted something online or sent a text that might embarrass or hurt another student	83.4%	11.9%	2.4%	1.1%	0.5%	0.2%	0.0%	0.5%

The type of bullying also varies by subpopulation. For instance, males are much more likely (19.3% vs. 11.7%) to report physical bullying. Females were more likely to spread mean rumors (25.7% vs. 19.9%)

or embarrass another student via text messaging or online (20.3% vs. 12.9%). African Americans were more likely to say they have hit, shoved or punched another student (23.9%) than Caucasians (13.3%). Finally, Latinos (26.1%) were more likely to say they've spread mean rumors or lies about other kids at school than non-Latinos (22.8%) and to report physical bullying (20.0% vs. 15.3%).

Peer Victimization

Students were asked if they were bullied on school property in the past year. Bullying was defined as, "when one or more students tease, threaten, spread rumors about, hit, shove, or hurt another student over and over again. It is not bullying when two students of about the same strength or power argue or fight or tease each other in a friendly way". More than a quarter (28.7%) reported that they had been bullied on school property; females were more likely to be bullied on school property than males (31.7% vs. 25.6%).

Table 25: Frequency of Peer Victimization in the Past 3 Months

	Never	1-2	3-5	6-9	10-19	20-29	30-39	40 or more
Been hit, shoved or pushed by another student who was not just fooling around	78.8%	12.3%	4.2%	2.0%	1.3%	0.5%	0.2%	0.8%
Mean rumors or lies spread about you at school	54.9%	23.0%	11.3%	5.5%	2.5%	0.9%	0.2%	1.8%
Made fun of by others	41.1%	25.3%	13.1%	7.2%	4.3%	2.5%	0.7%	6.0%
Had something embarrassing or hurtful posted online or in a text by another student	76.8%	13.2%	5.0%	2.3%	1.4%	0.3%	0.2%	0.9%

Students who have indicated that they have engaged in bullying another person report being a victim of bullying at a much higher rate than those who have not.

Figure 11: Peer Victimization Among Youth Who Reported Bullying Others in the Past 3 Months.
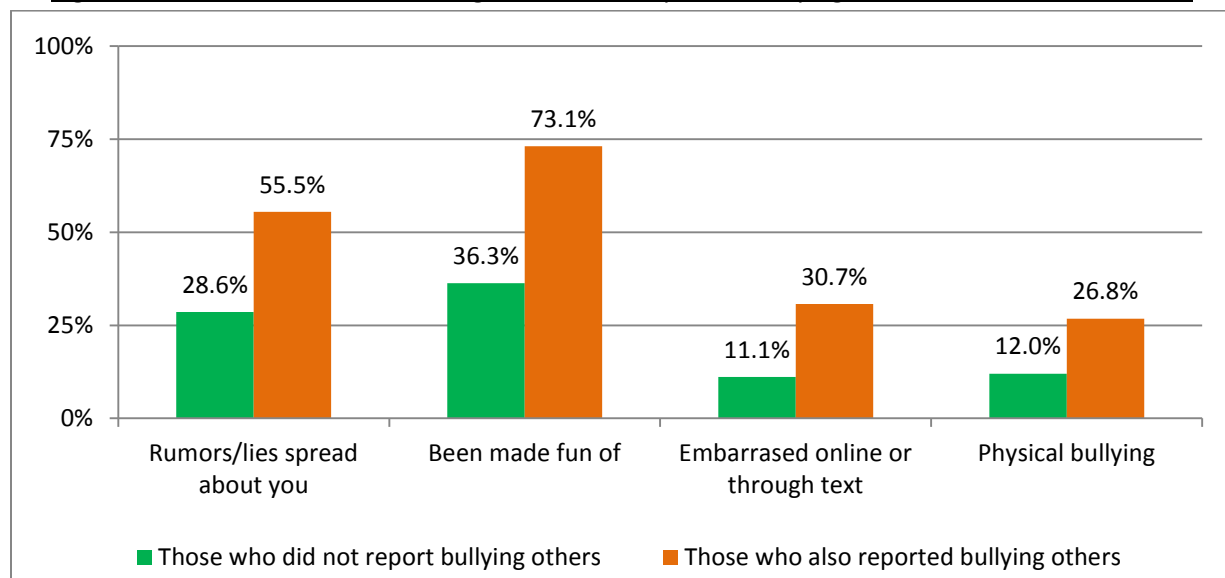
Physical Aggression & Experience with Weapons

Four out of five students reported not engaging in a physical fight in the last year. Almost all youth reported they were not injured in a physical fight nor were they threatened with a weapon while on school property. For those who did engage in fighting, the majority reported that they had only fought once in the past year.

Table 26: Frequency of Fighting and Being Threatened/Injured with a Weapon in the Past 12 months

	0 times	1 times	2 or 3 times	4 or 5 times	6 or 7 times	8 or 9 times	10 or 11 times	12 or more
In a physical fight	82.6%	9.7%	4.9%	1.1%	0.4%	0.2%	0.0%	1.2%
Injured in a physical fight (required medical treatment)	97.4%	1.8%	0.5%	0.1%	0.0%	0.1%	0.0%	0.1%
Threatened/Injured with a weapon on school property	92.4%	4.6%	1.6%	0.4%	0.0%	0.1%	0.0%	0.8%

Very few youth (4.0%) reported carrying a weapon at school. Of those, the largest categories were 1 day (1.3%) or 6 or more days (1.8%). Nationally, 5.9% of high school students reported carrying a weapon at school (YRBS, 2015) compared to 5.1% of Missouri high school students.

Rebellious & Defiant Attitudes

The large majority of youth did not report rebellious and defiant attitudes. Of the rebellious behaviors, cheating was seen as the most acceptable but still, less than 1 out of 5 students agreed with that statement.

Table 27: Extent of Rebellious and Defiant Attitudes

	Strongly disagree	Disagree	Agree	Strongly Agree
I ignore rules that get in my way.	35.9%	45.4%	15.9%	2.8%
I do the opposite of what people tell me, just to get them mad.	48.2%	39.4%	10.3%	2.2%
I think sometimes it is okay to cheat at school.	45.2%	34.0%	18.1%	2.7%

Weapons - Availability, Law Enforcement, and Peer Behavior

Over a third (38.4%) of all youth did not believe that a youth carrying a gun in their neighborhood would be caught by the police.

Table 28: Extent to Which Youth Think the Police would Catch a Kid Carrying a Gun in Their Neighborhood

	No!	no	yes	Yes!
If a kid was found carrying a gun in your neighborhood, or in the area around where you live, would he or she be caught by police?	14.1%	24.3%	33.2%	28.4%

While the vast majority of youth did not have a friend who carried a gun (not including use for hunting or sport), almost 10% reported one or more friends had carried a gun in the past year.

Table 29: Number of Friends Who Carried a Gun in the Past Year (12 months)

	0 friends	1 friend	2 friends	3 friends	4 or more friends
How many friends you feel closest to have carried a gun (not including use of a gun for hunting or sport)?	92.1%	3.8%	1.6%	0.5%	2.0%

CHAPTER 4 – MENTAL HEALTH

Depression

Youth were asked six questions related to depression.[10] Students most commonly (73.0%) reported at least sometimes feeling grouchy or in a bad mood, while the majority reported feeling sad, sleep changes and difficulty concentrating in school. Feeling hopeless was reported the least (32.2% "sometimes", "often" or "always")

Table 30: Extent of Depressive Symptoms in the Past Month (30 Days)

	Never	Not very often	Sometimes	Often	Always
Were you sad?	18.1%	29.6%	29.5%	16.8%	5.9%
Were you grouchy or irritable, or in a bad mood?	8.5%	18.4%	39.5%	26.6%	6.9%
Did you feel hopeless about the future?	45.2%	22.6%	18.7%	8.3%	5.2%
Did you feel like not eating or eating more than usual?	35.9%	19.5%	22.9%	14.6%	7.1%
Did you sleep a lot more or a lot less than usual?	24.4%	23.8%	27.0%	16.7%	8.1%
Did you have difficulty concentrating on your school work?	18.8%	21.9%	29.8%	18.2%	11.4%

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[10] Orpinas P. Skills training and social influences for violence prevention in middle schools: a curriculum evaluation. Doctoral Dissertation. Houston, TX: University of Texas Health Science Center at Houston, School of Public Health, 1993. (Unpublished)

Females consistently report experiencing more depressive symptoms then males, though differences related to "feeling hopeless" were less pronounced.

Table 31: Depressive Symptoms in the Past Month (30 Days) by Gender (Often & Always)

	Male	Female
Were you sad?	14.0%	30.9%
Were you grouchy or irritable, or in a bad mood?	25.0%	41.9%
Did you feel hopeless about the future?	10.4%	16.5%
Did you feel like not eating or eating more than usual?	14.2%	28.6%
Did you sleep a lot more or a lot less than usual?	17.8%	31.7%
Did you have difficulty focusing on your school work?	26.8%	32.2%

Self-Harm, Suicidal Ideation & Attempts

About 18.0% of students reported attempting to harm themselves on purpose in a deliberate, but not suicidal, way. The most common method of self-harm was to "cut, scratched or hit myself on purpose". Females were much more likely than males to report self-harm (25.3% vs. 10.5%).

Table 32: Percent of Students Reporting Types of Self-Harm

	Male	Female	Total
Cut, scratched or hit myself on purpose to hurt myself	7.8%	22.9%	15.5%
Pulled my hair or eyelashes	2.5%	7.0%	4.7%
Swallowed more medicine than a doctor told me to take to hurt myself	0.9%	7.1%	3.9%
Burned myself	0.9%	5.9%	3.3%
Used drugs or alcohol to hurt myself	0.7%	4.7%	2.6%
Other	3.0%	3.3%	3.1%
Swallowed something on purpose that was not food, drink or medicine in order to hurt myself	0.1%	0.9%	0.5%

More than 1 in 10 youth (13.9%) surveyed reported that they considered suicide in the last year, 9.9% made a plan to commit suicide, and 1.3% of all youth (more than a third of all attempts) had attempts that resulted in injury. Almost all of those who attempted did so only once.

Table 33: Number of Suicide Attempts in the Past Year (12 Months)

	0 times	1 time	2 or 3 times	4 or 5 times	6 or more times
How many times did you actually attempt suicide?	93.6%	3.1%	2.5%	0.4%	0.3%

Using the YRBS (2015) as a national comparison for high school students only, Missouri has lower numbers than national numbers across all questions.

Table 34: Percent of Students Reporting Suicidal Behavior – High School ONLY

	2016 MSS	2015 YRBS
Seriously Considered	15.0%	16.2%
Made a Plan	11.2%	13.4%
Attempted	6.3%	9.8%
Attempted Resulting in Injury	1.1%	3.2%

Caucasian students were more likely to report considering and planning suicide in the past year while African Americans were most likely to report an actual attempt. Note that students were able to select more than one race / ethnicity so there is a small degree of overlap between categories.

Figure 12: Percent of Youth, by Race, Who Report Suicidal Thoughts, Plans, and Attempts
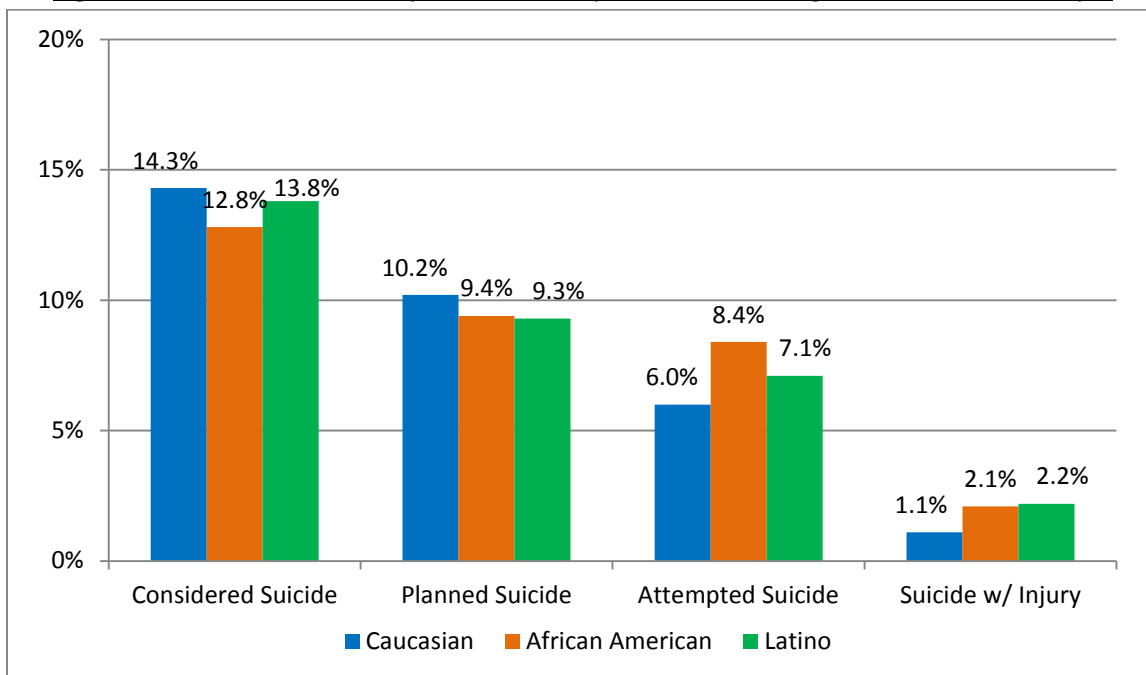
Females were more likely than males to consider, plan, and attempt suicide.

Figure 13: Percent of Youth, by Sex, Who Reported Suicidal Thoughts, Plans, and Attempts
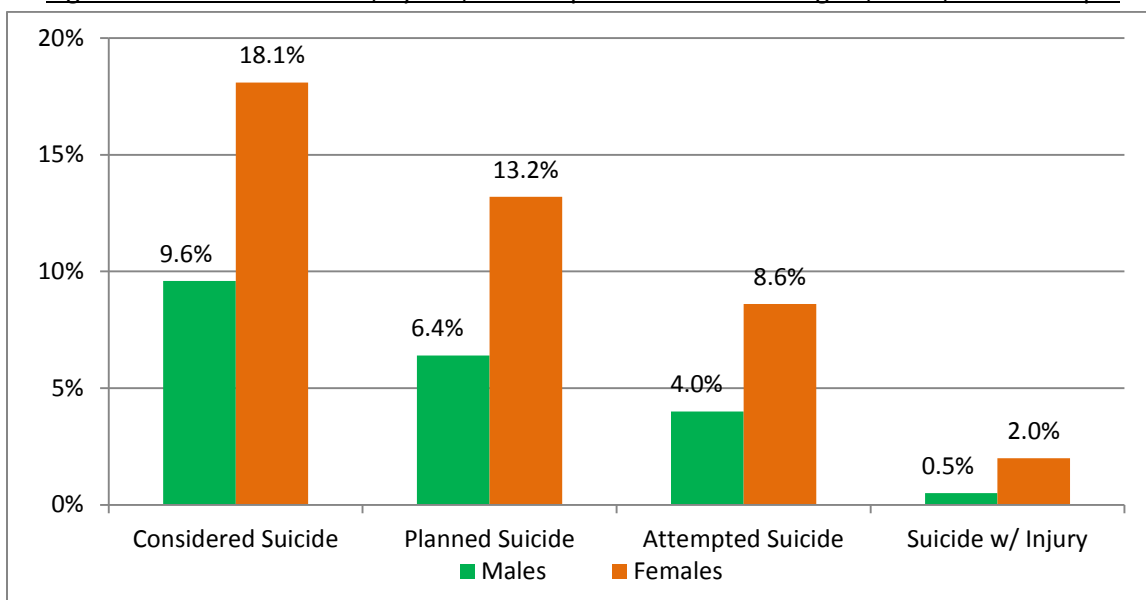
CHAPTER 5- EDUCATIONAL ENVIRONMENT

School Performance

Most youth surveyed reported they were making at least passing grades with almost half reporting having received mostly A's.

Table 35: Average Grades Last School Year

	Mostly F's	Mostly D's	Mostly C's	Mostly B's	Mostly A's
What were your average grades?	1.0%	2.0%	16.0%	33.5%	47.4%

In 2016, only 4.5% of students reported being suspended from school in the past 3 months.

Table 36: Number of Times Youth were Suspended from School in the Past 3 Months

	Never	1-2	3-5	6-9	10-19	20-29	30-39	40 or more
Been suspended from school	95.5%	3.5%	0.6%	0.1%	0.0%	0.0%	0.0%	0.2%

More than one in four (29.0%) students reported skipping at least one day of school in the past month. Of those students who did skip school, the majority reported skipping only 1 or 2 days.

Table 37: Number of Days Youth Skipped or Cut School in the Past Month (30 Days)

	0 days	1 or 2 days	3 to 5 days	6 to 9 days	10 + days
How many whole days have you missed school because you skipped or cut?	71.0%	21.2%	5.5%	1.5%	0.8%

The great majority of students report not skipping school due to feeling unsafe.   Missouri is similar to the national survey on this point (High school students only: 7.1% MSS, 2016 vs. 6.1% - YRBS, 2015). However, more than 1 in 10 students disagree or strongly disagree that they feel safe at school.

Table 38: Number of Days Youth Skipped Due to Feeling Unsafe (30 Days)

	0 days	1 day	2 to 3 days	4 to 5 days	6+ days
How many whole days have you missed school because you felt you would be unsafe at school or on your way to or from school?	94.1%	3.7%	1.1%	0.3%	0.7%

Table 39: Perceptions of School Safety in the Past Three Months

	Strongly disagree	Disagree	Agree	Strongly Agree
I feel safe at school	3.6%	10.9%	58.2%	27.4%

Perceptions & Attitudes toward School

The majority of youth thought that rules are enforced fairly and students are treated equally, however, it is concerning that more than a third of students disagreed that rules are enforced fairly and more than one in five disagreed that students of all races and ethnic groups treated equally. When looking at the question of equal treatment, students who identified as black were almost three times as likely to strongly disagree that students of all races and ethnic groups treated equally when compared to those who identified as white (14.2% vs. 4.5%).

Table 40: Perceptions and Attitudes Toward School by Youth

	Strongly disagree	Disagree	Agree	Strongly Agree
My teacher(s) notice(s) when I am doing a good job and let me know about it.	5.5%	21.4%	58.3%	14.8%
The school lets my parents know when I have done something well.	18.4%	42.4%	31.8%	7.4%
In my school, rules are enforced fairly.	10.4%	24.4%	52.9%	12.3%
In my school, students of all races and ethnic groups are treated equally.	6.4%	15.2%	46.6%	31.9%

Appendix A – Sampling & Weighting Methods

Report Prepared by Westat using information provided by MIMH

Introduction

The Missouri Student Survey (MSS) was administered during the 2015-2016 school year by the Missouri Institute of Mental Health (MIMH). The questionnaire asked about students' tobacco, drug, and alcohol use. Topics on bullying, fighting, mental health, suicide, and other information were also covered in the survey. In addition, thoughts, feelings, and opinions about themselves, schools, and friends were surveyed.

The MSS target survey population was students in grades 6 through 12 enrolled in regular public and charter schools. Special education buildings, juvenile justice centers, alternative schools, and Missouri Schools for the Blind and Deaf were excluded. Schools with less than 60 students in grades 6 through 12 were also excluded. The sampling frame contained 997 schools with 459,484 students enrolled in grades 6 through 12.

The MSS was a two-stage cluster sample, with schools selected in the first sampling stage and classrooms sampled in the second stage. All students in the sampled classrooms were asked to participate. To ensure good geographic representation, the sampling frame was sorted by 6-digit county district codes prior to sampling of schools. A total of 96 schools consisting of 48 high schools and 48 middle schools were selected systematically with probability proportional to size (enrollment in grades 6 through 12) using a random start. From each school, approximately 60 students (3-5 classes) were selected. All classes meeting during a particular period of the day or all classes in a required subject, depending on the school, were included in the class list. Systematic equal probability sampling with a random start was used to select classes from each school that participated in the survey. Classes were selected based on randomly generated numbers provided by MIMH.

Response Rates

For the two-stage sample, the overall response rate was computed as the product of school response rate and student response rate. The response rates were computed as

$$\text{School response rate} = \frac{\text{number of eligible participating schools}}{\text{number of eligible sampled schools}}$$

$$\text{Student response rate} = \frac{\text{number of eligible participating students}}{\text{number of eligible sampled students in participating schools}}$$

Of the 96 sampled schools, 56 schools participated, or a school response rate of 58%. A total of 3,397 students participated. However, the actual number of eligible sampled students was not known for some of the participating schools for one of the two following reasons: (1) some schools surveyed more classes that were originally planned, resulting in the number of completed surveys greater than the required number of eligible sampled students; (2) some schools failed to use all eligible classes for sampling. As a result, some students (those not on the class list) should have been sampled but did not have a chance of selection.

To correct the selection bias to the extent possible, two types of estimation were made to the number of eligible sampled students for calculating student response rate and for weighting:

1. For schools where the number of completed surveys was greater than the originally planned number of sampled students, the number of sampled students was estimated. The average student response rate for the remaining schools (0.718) was used to estimate the number of sampled students as follows:

$$\text{Estimated number of sampled students} = \frac{\text{number of completed surveys}}{\text{average student response rate}}$$

2. For schools that sampled from incomplete class lists, the number of students who were not included on the class lists was estimated. A within-school sampling interval of 67 students (based on the average number of sampled students from schools that used complete class lists) was applied to the estimated number of students missing from the class lists.

The number of sampled students (some were estimated), number of completed surveys, and student response rate by participating school are shown in Appendix A. The total number of sampled students (some were estimated) was 4,835, resulting in a student response rate of 3397/4835 = 70%. The overall response rate for the MSS was 41%.

Weighting

A weight was associated with each questionnaire to reflect the likelihood of sampling each student and to reduce bias by compensating for differing patterns of nonresponse. The weight used for estimation was given by:

$$W = W1 * W2 * f1 * f2 * f3$$

W1	=	the inverse of the probability of selecting the school;
W2	=	the inverse of the probability of selecting the classroom within the school;
f1	=	a school-level nonresponse adjustment factor calculated by school level (middle school, high school), school size category (small, medium, large). The factor was calculated in terms of school enrollment instead of number of schools;
f2	=	a student-level nonresponse adjustment factor calculated by school;
f3	=	a post-stratification adjustment factor calculated by gender within grade and by race/ethnicity.

The sum of final weights for the 3,397 respondents was 447,130, representing the number of students in grades 6 through 12 in regular public and charter schools in Mississippi.

Each component of the analysis weight, W is described in the following sections.

School Base Weight (W1)

Schools were selected with probability proportional to size, with size defined as school enrollment in grades 6 through 12. A base weight was calculated for each school as

$$W1 = \frac{\text{Total grades 6 through 12 enrollment in the sampling frame}}{n * \text{grades 6 through 12 enrollment in the school}}$$

where n is the number of schools required in the sample = 96; total grades 6 through 12 enrollment in the sampling frame = 459,484. The school base weights are shown in Appendix B.

Within-School Base Weight (W2)

For participating schools, the within school base weight was computed as

$$W2 = \frac{\text{grades 6 though 12 enrollment in the school}}{\text{number of eligible sampled students}}$$

As mentioned in the response rates section, the number of eligible sampled students was estimated for schools that did not implement the class sampling procedure correctly. For refusing schools, the number of eligible sampled students was unknown and was estimated by the average target number of sampled students in participating schools which was on average, 67 sampled students per school. The student base weights are provided in Appendix B.

Weighting Adjustments

Adjustments were made to the initial weights to remove bias from the estimates and reduce the variability of the estimate. The weighting process for the MSS involved three adjustments to the base weights. Two adjustments were made to account for nonresponse in the sample and one adjustment was made to align the weighted sample estimates to known population characteristics that could affect responses to survey questions. Each of these adjustments is summarized below.

School-Level Nonresponse Adjustment Factor (f1)

The first adjustment was made at the school level to account for nonparticipating schools that were sampled. To adjust for school nonresponse, each sampled school was assigned to one of six adjustment cells, based on school level (middle school, high school) and school size derived from enrollment in the target grades (large, medium, and small). The cells were constructed so that each group had approximately equal total enrollment. Within each adjustment cell, weights of refusing schools were distributed to the participating schools.

For each cell, a school-level nonresponse adjustment was calculated as

$$\text{School adjustment factor} = \frac{\sum_{sampled\ schools} \text{school base weight} * \text{school enrollment}}{\sum_{participating\ schools} \text{school base weight} * \text{school enrollment}}$$

Cells that had high adjustment factors (greater than 2) were collapsed with other cells for calculating the final adjustments. As shown in Table 1, school adjustment factors for two of the high school cells (cell 4 and cell 6) were greater than 2, the high school size categories were collapsed so that the final adjustment factor for the collapsed cell was 1.979.

Table 1. School adjustment factor

School adjustment cell	School level	Size category	Number of responding schools	Total enrollment	School adjustment factor	Final school adjustment cell	Final school adjustment factor
1	Middle school	Large	7	9237	1.286	1	1.286
2	Middle school	Medium	10	9709	1.400	2	1.400
3	Middle school	Small	15	8675	1.676	3	1.676

4	High school	Large	4	17789	2.250	4	1.979
5	High school	Medium	8	17260	1.500	4	1.979
6	High school	Small	12	15468	2.199	4	1.979

Student-Level Nonresponse Adjustment Factor (f2)

The second adjustment was made at the student-level that accounted for eligible students enrolled in sampled classes who failed to complete a questionnaire (e.g., students who were absent on the day the survey was administered, students who did not receive parental permission, students who refused to participate, or questionnaires that failed the edit and quality control checks). Weights of these nonresponding students were given to responding students in the same school.

Adjustment cells for the student-level adjustment were defined by school. Cells with low frequencies (less than 15 students) or very high adjustment factors (greater than 2.5) were collapsed with other cells in the same school level and school size category.

Within each adjustment cell, a student nonresponse adjustment factor was computed as

$$\text{Student adjustment factor} = \frac{\Sigma_{eligible\ sampled\ students}\ \text{student weight}}{\Sigma_{completed\ surveys}\ \text{student weight}}$$

where student weight = School base weight * School adjustment factor * Within-school base weight
$$= W1 * f1 * W2.$$

A total of 49 cells were formed. The student adjustment cells and the adjustment factors are shown in Appendix C. Cells with more than one school indicated that schools were collapsed for student nonresponse adjustment so that the resulting adjustment factor was less than 2.5. Student adjustment factors ranged from 1 to 2.296.

Post-stratification (f3)

The final weighting step adjusted the nonresponse-adjusted weights so that weighted sample totals aligned with known population totals for variables that could affect response to survey questions. Raking ratio estimation, also known as iterative post-stratification or raking was used to adjust the weights to population totals. For the MSS, population enrollment totals were created by grade and gender as well as by race/ethnicity. The population enrollment totals for grade by gender and for race/ethnicity are shown in Table 2 and Table 3, respectively.

Table 2. Population enrollment for grade by gender

Grade	Female	Male
6th	30,205	32,174
7th	31,523	32,548
8th	31,032	33,337
9th	32,924	34,854
10th	32,002	33,778
11th	30,614	31,514
12th	29,830	30,796

Table 3. Population enrollment for race/ethnicity

Race-ethnicity	Enrollment
non-Hispanic White	348,281
non-Hispanic Black	72,952
Other	25,897

"Other" race-ethnicity included Hispanic/Latino, American Indian/Alaska Native, Asian, Native Hawaiian/other Pacific Islander, multiple-Hispanic, and multiple-non-Hispanic. In the raking algorithm, the nonresponse-adjusted weights were adjusted to the first set of population enrollment totals by grade and gender, then the second set of population enrollment totals by race/ethnicity. This sequence was repeated until the adjusted weights converged to the population enrollment totals in each dimension. The first dimension of grade by gender consisted of 12 adjustment cells as shown in Table 2, and the second dimension of race/ethnicity contained three adjustment cells.

Each responding sampled student was assigned to an adjustment cell based on the grade and gender reported in the questionnaire. Race/ethnicity was derived from the Hispanic/Latino and the race questions that students responded. Within each cell, raking adjustment factors are computed as:

$$\text{Raking adjustment factor} = \frac{\text{Population enrollment total}}{\text{Nonresponse adjusted student weights for responding students}}$$

Occasionally, a completed questionnaire might have missing responses for the items used in raking. For raking purposes, missing responses for grade, gender, and race/ethnicity were imputed so that all responding sampled students could be assigned to an appropriate adjustment cell. Hot-deck imputation was used, where students with missing items (recipients) were filled in with reported items from other students (donors). Donors and recipients were grouped into imputation cells that

were similar in some auxiliary variables (boundary variables). Within each imputation cell, donors and recipients were matched randomly.

Missing grade was imputed within school based on the age of the student. For imputing gender and race/ethnicity, boundary variables were chosen such that they were highly significantly related to the imputed variable of interest, based on Chi-Square analysis, and had relatively small number of missing values. For gender, the following boundary variables were selected:

- Q37_1 (In the past 30 days how often were you very sad?)
- Q34_1_0 (During the past 12 months, how many times were you in a physical fight?)
- Q58 (Have you ever used chewing tobacco such as Redman, Levi Garrett, Beechnut, Skoal, Skoal Bandits, or Copenhagen or snuff (dip), even once?)

The following boundary variables were used to form imputation cells for race/ethnicity imputation:

- Q7 (What is the language you speak most often at home?)
- Q34_1_0 (During the past 12 months, how many times were you in a physical fight?)
- Q16 (What were your average grades last school year?)

The Chi-Square test statistic and p-value for the boundary variables are shown in Table 4.

Table 4. Significance of boundary variables

Variable	Used for imputing	Chi-Square statistic	Degrees of freedom	p-value
Q37_1	Gender	372.84	4	<.0001
Q34_1_0	Gender	117.63	7	<.0001
Q58	Gender	65.87	1	<.0001
Q7	Race/ethnicity	224.67	4	<.0001
Q34_1_0	Race/ethnicity	92.80	12	<.0001
Q16	Race/ethnicity	69.37	8	<.0001

The boundary variables had missing values in themselves. They were imputed first in a sequential manner. For example, for imputing gender using Q37_1, Q34_1_0, and Q58, missing values for Q37_1 were imputed using Q34_1_0 and Q58. Once Q37_1 was imputed, Q34_1_0 was then imputed using the complete Q37_1 data and Q58. Following the imputation of Q34_1_0, Q58 was imputed using the complete Q37_1 and Q34_1_0 data. After all three boundary variables had been imputed, gender was imputed using the complete Q37_1, Q34_1_0, and Q58 responses.

For the MSS, the imputed values were used for weighting only. Values of these imputed variables were not included in the delivery data file. The number of missing values, responses before and after imputation for grade, gender, race/ethnicity, and the boundary variables are shown in Appendix D.

Variables for Variance Estimation

Since the MSS was a two-stage cluster sample, statistical software designed for complex designs should be used for variance estimation. Software packages that do not account for the complex sample design would result in an underestimation of variances. Two variables were defined for calculating variances using specialized software for the MSS data. These variables identify the variance strata (STRATUM) and the primary sampling units (PSU) or variance units. Values of these variables were based on the procedures that were used to select the sample, where schools were selected using systematic sampling with probability proportional to enrollment by school level (middle school, high school).

Prior to forming variance strata, schools were first sorted by enrollment in descending order within school level. Participating schools were paired (or tripled) to form a variance stratum according to the order of enrollment. The first school in a variance stratum comprised PSU 1, the second school comprised PSU 2. If there was an odd number of participating schools, the last variance stratum would contain three schools and the last school would comprise PSU 3.

Appendix B – Survey Wording 2016

Comparison tables from 2006 to 2016 and copies of the surveys are available at
http://dmh.mo.gov/ada/mobhew/index.htm

INTRODUCTION

Thank you for agreeing to participate in this study. The following questions are about your thoughts and feelings on a number of subjects about which we would like to know your opinions. Completing this survey is completely voluntary, which means you can stop at any time and you don't have to answer any questions that you don't want to. There are no right or wrong answers and everything you say is completely anonymous. That means that no one will ever know your individual responses. Please answer the survey as thoughtfully and honestly as possible. Thank you very much for being an important part of this project!

- ❖ Please answer all of the questions by marking one of the answer spaces.
- ❖ Select the answer that comes closest to how you feel.
- ❖ If you are not sure what a question means, please ask the survey administrator to explain.
- ❖ If any of the questions make you uncomfortable, you don't have to answer them; just leave them blank.

Classrooms have been assigned an ID number. This does not identify you in any way; your answers are still anonymous.

After you have read this page, to begin the survey, please enter the code for your school here (your teacher will tell you what it is):

First, we'd like to know a little about you.

How old are you?

❍ 10 or younger
❍ 11
❍ 12
❍ 13
❍ 14
❍ 15
❍ 16
❍ 17
❍ 18
❍ 19 or older

What grade are you in?

❍ 6th
❍ 7th
❍ 8th
❍ 9th
❍ 10th
❍ 11th
❍ 12th

Are you male or female?

❍ Male
❍ Female

Are you Hispanic or Latino?

❍ Yes, I am Hispanic or Latino
❍ No, I am not Hispanic or Latino

Which of the following best describes you? (check all that apply)

❑ African American or Black
❑ American Indian or Alaskan Native
❑ Asian
❑ Native Hawaiian or other Pacific Islander
❑ White
❑ Other (please specify) _____

What is the language you speak most often at home?

○ English
○ Spanish
○ Other

How much education does your father have?

○ Did not finish High School
○ Some education after High School
○ Not Sure
○ Graduated from High School
○ Graduated from College

How much education does your mother have?

○ Did not finish High School
○ Some education after High School
○ Not Sure
○ Graduated from High School
○ Graduated from College

Have either of your parents served in the military (Army, Navy, Marines, Air Force, National Guard, or Reserves)? (check all that apply)

❑ No
❑ Yes, my mother is CURRENTLY in the military
❑ Yes, my mother WAS in the military but is now a veteran
❑ Yes, my father is CURRENTLY in the military
❑ Yes, my father WAS in the military but is now a veteran
❑ I'm not sure / don't know

Do you have your own cell phone?

○ No
○ Yes but I do not use it to access the internet
○ Yes and I use it to access the internet

During the past week, have you used the following media at least once? (check all that apply)

- ❑ Local radio
- ❑ Facebook
- ❑ Instagram
- ❑ Twitter
- ❑ Other (please specify) _____
- ❑ Snapchat
- ❑ Tumblr
- ❑ Youtube
- ❑ Vine
- ❑ Pinterest
- ❑ Yik Yak
- ❑ Kik
- ❑ Snapkidz

Where have you seen or heard messages against drinking alcohol or using drugs in the past 3 months? (check all that apply)

- ❑ Poster in school
- ❑ Television
- ❑ Video on Youtube
- ❑ Teacher
- ❑ Other (please specify) _____
- ❑ Pandora
- ❑ Radio ad
- ❑ Facebook
- ❑ Parent or guardian
- ❑ Items given to you such as pencils or t-shirts
- ❑ Billboard
- ❑ Bus ad
- ❑ Friend

Have you seen or heard the following lines in ads or posters about drugs or alcohol in the past 3 months? (check all that apply)

- ❑ Choose Your Future
- ❑ Be Under Your Own Influence
- ❑ Be Your Best
- ❑ Not Even Once
- ❑ For Your Future
- ❑ I have not seen or heard of any of the above

Your School

What were your average grades last school year?

- ○ Mostly A's
- ○ Mostly B's
- ○ Mostly C's
- ○ Mostly D's
- ○ Mostly F's

During the past 30 days, how many whole days have you missed school because you skipped or cut?

- ○ 0 days
- ○ 1 or 2 days
- ○ 3 to 5 days
- ○ 6 to 9 days
- ○ 10 or more days

During the past 30 days, on how many days did you not go to school because you felt you would be unsafe at school or on your way to or from school?

- ○ 0 days
- ○ 1 day
- ○ 2 or 3 days
- ○ 4 or 5 days
- ○ 6 or more days

I feel safe at school.

- ○ Strongly Disagree
- ○ Disagree
- ○ Agree
- ○ Strongly Agree

How many times in the past 3 months have you been suspended from school?

- ❍ Never
- ❍ 1-2
- ❍ 3-5
- ❍ 6-9
- ❍ 10-19
- ❍ 20-29
- ❍ 30-39
- ❍ 40 or more

The following sentences ask about your feelings about school. Please answer strongly disagree if you really don't agree with the question, disagree if you sort of disagree, agree if you sort of agree, and strongly agree if you really agree with the sentence

	Strongly Disagree	Disagree	Agree	Strongly Agree
My teacher(s) notice(s) when I am doing a good job and let me know about it.	❍	❍	❍	❍
The school lets my parents know when I have done something well.	❍	❍	❍	❍
Rules are enforced fairly.	❍	❍	❍	❍
Students of all races and ethnic groups are treated equally.	❍	❍	❍	❍

Your Friends   During the past year (12 months), how many of the friends you feel closest to you have

	0 friends	1 friend	2 friends	3 friends	4 or more friends
smoked cigarettes?	○	○	○	○	○
had a drink of any type of alcohol?	○	○	○	○	○
smoked marijuana (pot, weed)?	○	○	○	○	○
used any other illegal drugs such as cocaine, LSD (acid), methamphetamine (meth.), or club drugs (molly, ecstasy, roofies)?	○	○	○	○	○
carried a gun (not including use of a gun for hunting or sport)?	○	○	○	○	○

How wrong do your friends feel it would be for you to

	Not wrong at all	A little bit wrong	Wrong	Very wrong
have one or two drinks of an alcoholic beverage nearly every day?	○	○	○	○
smoke tobacco?	○	○	○	○
smoke marijuana (pot, weed)?	○	○	○	○
use prescription drugs not prescribed to you?	○	○	○	○

Your Neighborhood Please answer No! if you really don't agree with the sentence, no if you sort of disagree, yes if you sort of agree, and Yes! if you really agree with the sentence.

	No!	no	yes	Yes!
If a kid smoked cigarettes in your neighborhood, or the area around where you live, would he or she be caught by the police?	○	○	○	○
If a kid drank some beer, wine, or hard liquor (for example, vodka, whiskey, or gin) in your neighborhood, or the area around where you live, would he or she be caught by the police?	○	○	○	○
If a kid smoked marijuana (pot, weed) in your neighborhood, or the area around where you live, would he or she be caught by the police?	○	○	○	○
If a kid was found carrying a gun in your neighborhood, or the area around where you live, would he or she be caught by the police?	○	○	○	○

Your Thoughts and Behaviors The next set of questions asks about bullying. Bullying is when 1 or more students tease, threaten, spread rumors about, hit, shove, or hurt another student over and over again. It is not bullying when 2 students of about the same strength or power argue or fight or tease each other in a friendly way.

How many times in the past 3 months have YOU done the following action:

	Never	1-2	3-5	6-9	10-19	20-29	30-39	40 or more
Spread mean rumors or lies about other kids at school?	○	○	○	○	○	○	○	○
Posted something online or sent a text that might embarrass or hurt another student?	○	○	○	○	○	○	○	○
Made fun of other people?	○	○	○	○	○	○	○	○
Hit, shoved or pushed another student and was not just fooling around?	○	○	○	○	○	○	○	○

During the past 12 months, have you ever been bullied on school property?

○ No
○ Yes

How many times in the past 3 months has SOMEONE ELSE done the following action TO YOU:

	Never	1-2	3-5	6-9	10-19	20-29	30-39	40 or more
Spread mean rumors or lies about you at school?	❍	❍	❍	❍	❍	❍	❍	❍
Posted something online or sent a text that embarrassed or hurt you?	❍	❍	❍	❍	❍	❍	❍	❍
Made fun of you?	❍	❍	❍	❍	❍	❍	❍	❍
Hit, shoved or pushed you and was not just fooling around?	❍	❍	❍	❍	❍	❍	❍	❍

During the past 30 days, on how many days did you carry a weapon such as a gun, knife, or club on school property?

- ❍   0 days
- ❍   1 day
- ❍   2 or 3 days
- ❍   4 or 5 days
- ❍   6 or more days

During the past 12 months, how many times

	0 times	1 time	2 or 3	4 or 5	6 or 7	8 or 9	10 or 11	12 or more
Were you in a physical fight?	❍	❍	❍	❍	❍	❍	❍	❍
Were you in a physical fight in which you were injured and had to be treated by a doctor or nurse?	❍	❍	❍	❍	❍	❍	❍	❍
Has someone threatened or injured you with a weapon such as a gun, knife, or club on school property?	❍	❍	❍	❍	❍	❍	❍	❍

The following sentences ask about your feelings about yourself. Please answer strongly disagree if you really don't agree with the sentence, disagree if you sort of disagree, agree if you sort of agree, and strongly agree if you really agree with the sentence.

	Strongly Disagree	Disagree	Agree	Strongly Agree
I ignore rules that get in my way.	○	○	○	○
I do the opposite of what people tell me, just to get them mad.	○	○	○	○
I think sometimes it is okay to cheat at school.	○	○	○	○
I know where to go in my community to get help.	○	○	○	○
I feel optimistic about my future.	○	○	○	○
I feel that I handle stress in a healthy way.	○	○	○	○
I have adults in my life I turn to when things feel overwhelming.	○	○	○	○

On an average school night, how many of hours of sleep do you get?

○   4 hours or Less
○   5 hours
○   6 hours
○   7 hours
○   8 hours
○   9 hours
○   10 or more hours

In the last 30 days how often:

	Never	Not very often	Sometimes	Often	Always
were you very sad?	○	○	○	○	○
were you grouchy or irritable, or in a bad mood?	○	○	○	○	○
did you feel hopeless about the future?	○	○	○	○	○
did you feel like not eating or eating more than usual?	○	○	○	○	○
did you sleep a lot more or a lot less than usual?	○	○	○	○	○
did you have difficulty concentrating on your school work?	○	○	○	○	○

During the past 12 months, did you ever seriously consider attempting suicide?

○ No
○ Yes

During the past 12 months, did you make a plan about how you would attempt suicide

○ No
○ Yes

During the past 12 months, how many times did you actually attempt suicide?

○ 0 times
○ 1 time
○ 2 or 3 times
○ 4 or 5 times
○ 6 or more times

If 0 times Is Selected, Then Skip To Have you ever harmed yourself on purpose in a way that was deliberate but not intended as a way to take your life?

If you attempted suicide during the past 12 months, did any attempt result in an injury, poisoning, or overdose that had to be treated by a doctor or nurse?

○ No
○ Yes

Have you ever harmed yourself on purpose in a way that was deliberate but not intended as a way to take your life?

○ No
○ Yes

If No Is Selected, Then Skip To Your Beliefs about Cigarettes, Alcohol, and Other Drugs

What did you do? (check all that apply)

❑ Cut, scratched or hit myself on purpose to hurt myself
❑ Swallowed more medicine than a doctor told me to take to hurt myself
❑ Used drugs or alcohol to hurt myself
❑ Swallowed something on purpose that was not food, drink or medicine in order to hurt myself
❑ Burned myself
❑ Pulled my hair or eyelashes
❑ Other (please specify) _____

Your Beliefs about Cigarettes, Alcohol, and Other Drugs

These questions are about how available certain things are to you.

	Very easy	Sort of easy	Sort of hard	Very hard
If you wanted to get some cigarettes, how easy would it be for you to get some?	○	○	○	○
If you wanted to get some e-cigs, mods, or vapes, how easy would it be for you to get some?	○	○	○	○
If you wanted to get some alcohol (beer, wine, brandy, and mixed drinks), how easy would it be for you to get some?	○	○	○	○
If you wanted to get some marijuana (pot, weed), how easy would it be for you to get some?	○	○	○	○
If you wanted to get any other illegal drugs such as cocaine, LSD (acid), methamphetamine (meth.), or club drugs (molly, ecstasy, roofies), how easy would it be for you to get some?	○	○	○	○
If you wanted to get some over the counter drugs (Tylenol Cough, Dayquil, Benadryl, etc) when you were not sick, how easy would it be for you to get some?	○	○	○	○
If you wanted to get some prescription drugs that were not prescribed to you by a doctor, how easy would it be for you to get some?	○	○	○	○
If you wanted to get some synthetic drugs (such as K2, bath salts, plant food, Spice), how easy would it be for you to get some?	○	○	○	○

How "cool" do you think your peers believe someone your age would be if they

	Very cool	Pretty cool	A little cool	Not at all cool
Smoked cigarettes?	❍	❍	❍	❍
Used e-cigs, mods, or vapes?	❍	❍	❍	❍
Drank alcohol?	❍	❍	❍	❍
Smoked marijuana (pot, weed)?	❍	❍	❍	❍

How much do you think people risk harming themselves (physically or in other ways) if they

	No risk at all	Slight risk	Moderate risk	Great risk
drink alcohol?	❍	❍	❍	❍
take one or two drinks of an alcoholic beverage nearly every day?	❍	❍	❍	❍
have five or more drinks of an alcoholic beverage once or twice a week?	❍	❍	❍	❍
smoke one or more packs of tobacco cigarettes per day?	❍	❍	❍	❍
smoke e-cigarettes	❍	❍	❍	❍
smoke marijuana (pot, weed) once or twice a week?	❍	❍	❍	❍
use any other illegal drugs such as cocaine, LSD (acid), methamphetamine (meth.), or club drugs (molly, ecstasy, roofies)?	❍	❍	❍	❍
use synthetic drugs (K2, bath salts, plant food, Spice)?	❍	❍	❍	❍
use Cold/Cough Medicines (Coricidin Cough, Sudafed, TheraFlu, Tylenol Cough) or other over–the–counter medicines to get high?	❍	❍	❍	❍
use prescription drugs that have not been prescribed to them?	❍	❍	❍	❍

How do you feel about someone your age having one or two drinks of an alcoholic beverage nearly every day?

- ○ Neither Approve Nor Disapprove
- ○ Somewhat Disapprove
- ○ Strongly Disapprove
- ○ Don't Know/ Can't Say

How wrong do you feel it would be for you to

	Not wrong at all	A little bit wrong	Wrong	Very wrong
smoke tobacco cigarettes?	○	○	○	○
smoke e-cigarettes	○	○	○	○
have a drink of any type of alcohol?	○	○	○	○
take one or two drinks of an alcoholic beverage nearly every day?	○	○	○	○
have five or more drinks of an alcoholic beverage once or twice a week?	○	○	○	○
use marijuana (pot, weed)?	○	○	○	○
smoke marijuana (pot, weed) once or twice a week?	○	○	○	○
use any other illegal drugs such as cocaine, LSD (acid), methamphetamine (meth.), or club drugs (molly, ecstasy, roofies)?	○	○	○	○
use Cold/Cough Medicines (Coricidin Cough, Sudafed, TheraFlu, Tylenol Cough) or other over–the–counter medicines to get high?	○	○	○	○
use prescription drugs that have not been prescribed to you by a doctor?	○	○	○	○

Cigarettes, Alcohol, and Other Drugs These next questions are about your use of tobacco, alcohol, and other drugs. Remember your answers are completely anonymous.

CIGARETTES.

If one of your best friends offered you a cigarette, would you smoke it?

- ⭕ Definitely not
- ⭕ Probably not
- ⭕ Probably yes
- ⭕ Definitely yes

Have you ever smoked part or all of a cigarette?

- ⭕ No
- ⭕ Yes

If No Is Selected, Then Skip To CHEWING TOBACCO.

How old were you the first time you smoked part or all of a cigarette?

- ⭕ 8 or Younger
- ⭕ 9
- ⭕ 10
- ⭕ 11
- ⭕ 12
- ⭕ 13
- ⭕ 14
- ⭕ 15
- ⭕ 16
- ⭕ 17
- ⭕ 18
- ⭕ 19 or older

What is your best estimate of the number of days you smoked part or all of a cigarette during the past 30 days?

- ❍ 0 days
- ❍ 1 or 2 days
- ❍ 3 to 5 days
- ❍ 6 to 9 days
- ❍ 10 to 19 days
- ❍ 20 to 29 days
- ❍ All 30 days

If 0 days Is Selected, Then Skip To CHEWING TOBACCO.

Have you ever tried to quit smoking cigarettes?

- ❍ Yes and I quit
- ❍ Yes, but I still smoke
- ❍ No, I never tried

On the day or days you smoked cigarettes during the past 30 days, how many cigarettes did you smoke per day, on average?

- ❍ Part of one cigarette per day
- ❍ 1 cigarette per day
- ❍ 2 to 5 cigarettes per day
- ❍ 6 to 15 cigarettes per day (about 1/2 pack)
- ❍ 16 to 25 cigarettes per day (about 1 pack)
- ❍ 26 to 35 cigarettes per day (about 1 1/2 packs)
- ❍ More than 35 cigarettes per day (about 2 packs or more)

What is your best estimate of the number of days you smoked part or all of a cigarette on school property during the past 30 days?

- ❍ 0 days
- ❍ 1 or 2 days
- ❍ 3 to 5 days
- ❍ 6 to 9 days
- ❍ 10 to 19 days
- ❍ 20 to 29 days
- ❍ All 30 days

CHEWING TOBACCO. These next questions are about your use of chewing tobacco and snuff, sometimes called dip.

Have you ever used chewing tobacco such as Redman, Levi Garrett, Beechnut, Skoal, Skoal Bandits, or Copenhagen or snuff (dip), even once?

○ No
○ Yes
If No Is Selected, Then Skip To ELECTRONIC CIGARETTES

What is your best estimate of the number of days you used chewing tobacco or snuff during the past 30 days?

○ 0 days
○ 1 or 2 days
○ 3 to 5 days
○ 6 to 9 days
○ 10 to 19 days
○ 20-29 days
○ All 30 days

ELECTRONIC CIGARETTES (E-CIGS, MODS, or VAPES). These next questions are about your use of e-cigs, mods, or vapes.

Have you ever used e-cigs, mods, or vapes even once?

○ No
○ Yes
If No Is Selected, Then Skip To HOOKAH.

What is your best estimate of the number of days you used e-cigs, mods or vapes during the past 30 days?

- ○ 0 days
- ○ 1 or 2 days
- ○ 3 to 5 days
- ○ 6 to 9 days
- ○ 10 to 19 days
- ○ 20-29 days
- ○ All 30 days

What do you use in your e-cig, mod, or vape? (check all that apply)

- ❑ Nicotine
- ❑ Marijuana (pot, weed)
- ❑ Flavor only
- ❑ Other (please specify) _____

HOOKAH. These next questions are about your use of hookahs or water pipes.

Have you ever used hookahs (water pipes), even once?

- ○ No
- ○ Yes

If No Is Selected, Then Skip To   ALCOHOL.

What is your best estimate of the number of days you used hookahs (water pipes) during the past 30 days?

- ○ 0 days
- ○ 1 or 2 days
- ○ 3 to 5 days
- ○ 6 to 9 days
- ○ 10 to 19 days
- ○ 20-29 days
- ○ All 30 days

ALCOHOL. The next questions are about alcohol, such as beer, wine, brandy, and mixed drinks. We are not asking about times when you only had a sip or two from a drink or drank only for religious purposes. Throughout these questions, by a "drink", we mean a can or bottle of beer, a glass of wine or a wine cooler, a shot of liquor, or a mixed drink with liquor in it.

If one of your best friends offered you alcohol to drink, would you drink it?

- ⭕ Definitely not
- ⭕ Probably not
- ⭕ Probably yes
- ⭕ Definitely yes

During the past 30 days, on how many days did you ride in a car or other vehicle driven by someone who had been drinking alcohol?

- ⭕ 0 days
- ⭕ 1 or 2 days
- ⭕ 3 to 5 days
- ⭕ 6 to 9 days
- ⭕ 10 to 19 days
- ⭕ 20-29 days
- ⭕ All 30 days

Have you ever, even once, had a drink of any type of alcohol? Please do not include times when you only had a sip or two from a drink or if you drank alcohol only for religious purposes.

- ⭕ No
- ⭕ Yes

If No Is Selected, Then Skip To MARIJUANA.

Think about the first time you had a drink of alcohol. How old were you the first time you had a drink of an alcoholic beverage? Please do not include any time when you only had a sip or two from a drink.

- ○ 8 or Younger
- ○ 9
- ○ 10
- ○ 11
- ○ 12
- ○ 13
- ○ 14
- ○ 15
- ○ 16
- ○ 17
- ○ 18
- ○ 19 or older

During your life, how many times have you had at least one drink of alcohol?

- ○ 0 times
- ○ 1-2 times
- ○ 3-5 times
- ○ 6-9 times
- ○ 10-19 times
- ○ 20-39 times
- ○ 40 or more times

What is your best estimate of the number of days you drank alcohol during the past 30 days?

- ○ 0 days
- ○ 1 or 2 days
- ○ 3 to 5 days
- ○ 6 to 9 days
- ○ 10 to 19 days
- ○ 20 to 29 days
- ○ All 30 days

If 0 days Is Selected, Then Skip To MARIJUANA.

Think back over the last two weeks. How many times have you had five or more alcoholic drinks in a row?

○ None
○ Once
○ Twice
○ 3-5 times
○ 6-9 times
○ 10 or more times

On the days you drink alcohol, about how many drinks do you have on average?

○ Less than one
○ One
○ Two
○ Three
○ Four
○ Five
○ Six or more

What is your best estimate of the number of days you drank alcohol on school property during the past 30 days?

○ 0 days
○ 1 or 2 days
○ 3 to 5 days
○ 6 to 9 days
○ 10 to 19 days
○ 20 to 29 days
○ All 30 days

During the past 30 days, on how many days did you drive a car or other vehicle when you had been drinking alcohol?

○ 0 days
○ 1 or 2 days
○ 3 to 5 days
○ 6 to 9 days
○ 10 to 19 days
○ 20 to 29 days
○ All 30 days

MARIJUANA. The next questions are about marijuana, also called weed, pot or grass. Marijuana is usually smoked, either in cigarettes, called joints, or in a pipe.

If one of your best friends offered you marijuana, would you use it?

❍ Definitely not
❍ Probably not
❍ Probably yes
❍ Definitely yes

Have you ever, even once, used marijuana?

❍ No
❍ Yes

If No Is Selected, Then Skip To INHALANTS.

How old were you the first time you used marijuana?

❍ 8 or Younger
❍ 9
❍ 10
❍ 11
❍ 12
❍ 13
❍ 14
❍ 15
❍ 16
❍ 17
❍ 18
❍ 19 or older

What is your best estimate of the number of days you used marijuana during the past 30 days?

❍ 0 days
❍ 1 or 2 days
❍ 3 to 5 days
❍ 6 to 9 days
❍ 10 to 19 days
❍ 20 to 29 days
❍ All 30 days

If 0 days Is Selected, Then Skip To INHALANTS.

What is your best estimate of the number of days you used marijuana on school property during the past 30 days?

- ○ 0 days
- ○ 1 or 2 days
- ○ 3 to 5 days
- ○ 6 to 9 days
- ○ 10 to 19 days
- ○ 20 to 29 days
- ○ All 30 days

How do you use Marijuana? (check all that apply)

- ❑ Smoke it (blunt, pipe, joint, etc.)
- ❑ Smoke it (vape, bong, water pipe, hookah)
- ❑ Eat it (Edibles)
- ❑ Dabbing/Wax/Hash oil
- ❑ Other (please specify)

INHALANTS. The next questions are about inhalants, which are liquids, sprays, and gases that some people sniff or inhale. Inhalants include things like gas in aerosol cans, whippets, gasoline, white out, glue, and marking pens.

Have you ever, even once, used inhalants?

❍ No
❍ Yes

If No Is Selected, Then Skip To PRESCRIPTION DRUGS

How old were you the first time you used inhalants?

❍ 8 or Younger
❍ 10
❍ 11
❍ 12
❍ 13
❍ 14
❍ 15
❍ 16
❍ 17
❍ 18
❍ 19 or older

What is your best estimate of the number of days you used inhalants during the past 30 days?

❍ 0 days
❍ 1 or 2 days
❍ 3 to 5 days
❍ 6 to 9 days
❍ 10 to 19 days
❍ 20 to 29 days
❍ All 30 days

PRESCRIPTION DRUGS. The next questions are about prescription drugs (such as OxyContin, Percocet, Vicodin, codeine, Adderall, Ritalin, or Xanax) taken without a doctor's prescription?

Have you ever, even once, used prescription medication that was not prescribed for you by a doctor? (not including "over-the-counter" medications)

- ❍ No
- ❍ Yes

In the past 12 months, which of the following prescription drugs have you used without a doctor's prescription for your use? (check all that apply)

- ❑ Stimulants (e.g., Dexedrine, Adderall, Ritalin, Concerta)
- ❑ Pain medication (e.g., Vicodin, OxyContin, Tylenol 3 with Codeine, Demerol, morphine)
- ❑ Sedatives/anxiety medication (e.g., Barbiturates, Valium, Librium, Xanax, Ativan, Klonopin)
- ❑ Sleeping medication (e.g., Ambien, Halcion, Restoril)
- ❑ Other (please specify) _____

What is your best estimate of the number of days in the past 30 days you used any prescription medication that was not prescribed for you by a doctor

- ❍ 0 days
- ❍ 1 or 2 days
- ❍ 3 to 5 days
- ❍ 6 to 9 days
- ❍ 10 to 19 days
- ❍ 20 to 29 days
- ❍ All 30 days

If 0 days Is Selected, Then Skip To OVER-THE-COUNTER MEDICATIONS.

How do you access your prescription drugs without a doctor's prescription? (check all that apply)

- ❑ A family member gives or sells it to me
- ❑ A friend gives or sells it to me
- ❑ A stranger gives or sells it to me
- ❑ I take it without permission
- ❑ Buy it online
- ❑ Other (please specify) _____

People use prescription drugs for various reasons, including the reasons displayed below. For any of the drugs you used without a doctor's prescription, check the reasons that were important to you. (check all that apply)

- ❑ To help with stress reduction
- ❑ To help me sleep
- ❑ To help me feel better or happier
- ❑ To increase my energy
- ❑ To help with weight loss
- ❑ To fit in with friends
- ❑ To have a good time
- ❑ To reduce and/or manage pain
- ❑ To improve academic performance
- ❑ Curiosity

How old were you the first time you used prescription medication that was not prescribed for you by a doctor? (not including "over-the-counter" medications)

- ○ 8 or Younger
- ○ 9
- ○ 10
- ○ 11
- ○ 12
- ○ 13
- ○ 14
- ○ 15
- ○ 16
- ○ 17
- ○ 18
- ○ 19 or older

OVER-THE-COUNTER MEDICATIONS.

Have you ever, even once, use Cold/Cough Medicines (Coricidin Cough, Sudafed, TheraFlu, Tylenol Cough) or other over–the–counter medicines to get high?

- ○ No
- ○ Yes

If No Is Selected, Then Skip To SYNTHETIC DRUGS

How old were you the first time you used Cold/Cough Medicines (Coricidin Cough, Sudafed, TheraFlu, Tylenol Cough) or other over-the-counter medicines to get high?

- ○ 8 or Younger
- ○ 9
- ○ 10
- ○ 11
- ○ 12
- ○ 13
- ○ 14
- ○ 15
- ○ 16
- ○ 17
- ○ 18
- ○ 19 or older

What is your best estimate of the number of days in the past 30 days you used Cold/Cough Medicines (Coricidin Cough, Sudafed, TheraFlu, Tylenol Cough) or other over–the–counter medicines to get high?

- ○ 0 days
- ○ 1 or 2 days
- ○ 3 to 5 days
- ○ 6 to 9 days
- ○ 10 to 19 days
- ○ 20 to 29 days
- ○ All 30 days

SYNTHETIC DRUGS.

Have you ever, even once, used a synthetic drug (K2, bath salts, plant food, Spice)?

- ○ No
- ○ Yes

If No Is Selected, Then Skip To OTHER DRUGS.

What is your best estimate of the number of days in the past 30 days you used synthetic drug?

○ 0 days
○ 1 or 2 days
○ 3 to 5 days
○ 6 to 9 days
○ 10 to 19 days
○ 20 to 29 days
○ All 30 days

OTHER DRUGS.

Have you ever, even once, used any form of cocaine?

○ No
○ Yes

Have you ever, even once, used heroin (also called smack or H)?

○ No
○ Yes

Have you ever, even once, used hallucinogens such as LSD (acid), PCP (angel dust), Magic Mushrooms, Mescaline, Peyote, or Psilocybin?

○ No
○ Yes

Have you ever, even once, used methamphetamine (known as meth, crank, crystal, or ice)?

○ No
○ Yes

Have you ever, even once, used Dumolan (also known as "dums" or "dumbos")?

○ No
○ Yes

Have you ever, even once, used any type of club drug including MDMA (molly, ecstasy, X, E), GHB (G), Rohypnol (roofie), and Ketamine (Special K)?

○ No
○ Yes

Your Family

	Strongly disagree	Disagree	Agree	Strongly agree
My parents notice when I am doing a good job and let me know about it.	○	○	○	○
My parents ask me what I think before most family decisions affecting me are made.	○	○	○	○
My parents ask if I have gotten my homework done.	○	○	○	○

	Not wrong at all	A little bit wrong	Wrong	Very wrong
How wrong do your parents feel it would be for you to smoke tobacco?	○	○	○	○
How wrong do your parents feel it would be for you to have a drink of any type of alcohol?	○	○	○	○
How wrong do your parents feel it would be for you to take one or two drinks of an alcoholic beverage nearly every day?	○	○	○	○
How wrong do your parents feel it would be for you to use Cold/Cough Medicines (Coricidin Cough, Sudafed, TheraFlu, Tylenol Cough) or other over–the–counter medicines to get high?	○	○	○	○
How wrong do your parents feel it would be for you to smoke marijuana (pot, weed)?	○	○	○	○
How wrong do your parents feel it would be for you to smoke marijuana (pot, weed) once or twice a week?	○	○	○	○
How wrong do your parents feel it would be for you to use prescription drugs not prescribed to you?	○	○	○	○

How often do people in your family insult or yell at each other?

- ○ Never
- ○ Not very often
- ○ Some of the time
- ○ Most of the time
- ○ All of the time

Honesty

How honest were you in filling out this survey?

- ○ I was not honest at all
- ○ I was honest once in a while
- ○ I was honest some of the time
- ○ I was honest pretty much all of the time
- ○ I was honest all of the time

Thanks very much for completing this survey!!!

Table of Tables

Table of Figures